DEPARTMENT OF RECONSTRUCTION AND SUPPLY

ECONOMIC RESEARCH BRANCH

RECONVERSION, MODERNIZATION AND EXPANSION

PROGRESS AND PROGRAMS IN SELECTED CANADIAN MANUFACTURING INDUSTRIES, 1945 - 1947

AN ANALYSIS OF REPORTS PROVIDED BY 643 MAJOR PLANTS FORMERLY ENGAGED IN WAR PRODUCTION

OTTAWA, CANADA

AUGUST, 1946

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FOREWORD

During the war, Canada's manufacturing industry doubled its capacity. There emerged new plants, new processes, new products, new managements, new occupations, and even new communities. Some of these matters were described in a report released in November 1945 by this Branch on the "Location and Effects of Wartime Industrial Expansion in Canada".

Much of this new industrial activity was for purely armament purposes, and following the V-days in 1945, the main determinant of economic developments was the need for re-adjustment of the economy to a peacetime basis.

During this transition it appeared desirable to get some measure of its rate of progress. In March, 1946, a survey was made of 643 plants formerly engaged in war production. The object of this survey was to ascertain how far their reconversion had proceeded at that time, when they expected to complete it, and whether they intended modernizing or expanding their operations in the immediate future. The information thus gathered, supplemented by later information, forms the substance of this report. It is therefore a factual report on the progress of adaptation of productive facilities to postwar uses.

The survey it will be noted, mainly covers what were known as the war-industries, shows how they were proceeding with reconversion, modernization and expansion in 1946, and what their plans were, some of which extended as far ahead as 1949. The summaries show this information by types of industry and by region.

This report was prepared by D.M. McDonald and L.S. Albright, assisted by Miss M.C. Carlin, of the Economic Research Branch of the Department of Reconstruction and Supply.

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Deputy Director-General,
Economic Research Branch.

Ottawa, August 20, 1946.

TABLE OF CONTENTS

TABLE OF CONTENTS (cont.)

LIST OF TABLES

SECTION I - TABLES IN THE TEXT — PAGE

LIST OF TABLES (cont.)

LIST OF FIGURES

INTRODUCTORY SUMMARY

The Transition Period

The transition of the economic system from war to peace can be considered as occuring in several stages. Most simply, however, the immediate transition in the year or two following the cessation of hostilities can be regarded as taking place in two phases, the first revealing itself as a stage during which the adjustment of the economy to peacetime production was accompanied by an increase in unemployment, a period particularly marked by the rapid curtailment of Government spending; and the second beginning as the forces of decline are more than offset by the forces of expansion present in private industry and commerce. The first phase is characterized by the cancellation of war contracts, the closure of certain war industries, the partial reconversion and initial post-war expansion of industry, the demobilization of the armed services and the readjustment of the labour force to all these conditions. The second phase opens as the upthrust of new private investment affects construction and other industries making producer goods, and as the growing volume of consumer goods begins to satisfy the backlog of consumer demand at home and abroad. In some respects the phases are not clear-cut, but the broad pattern is real enough.

By March, 1946, it appeared that the economy had reached the middle of this transition. War production was virtually completed, most of the demobilization had taken place, and firms that could switch readily to peace production had effected the change. But the forces of expansion had not yet revealed much of their full strength. March was therefore considered an opportune time to survey the reconversion process, in order to judge of its extent and to gauge the expansion forces that might be expected to prevail in the economy late in 1946 and into 1947. Accordingly, this Branch made a survey of the larger plants that had been engaged in war production. Since the forces of expansion would reveal themselves not merely in the reconversion of plants, but also in their modernization or in the enlargement of their capacity, the questionnaire to the plants covered these and some other matters.

Progress of Conversion to Peace Conditions during 1946.

(1) This survey, and other evidence gathered since March, 1946, indicate that the technical reconversion of Canadian manufacturing industries has been largely accomplished, and with speed and comparatively little

dislocation. Present indications are that reconversion of productive facilities of manufacturing industries formerly engaged in war production was about three-quarters complete by August, 1946, one year after V-J Day. By the end of 1946, reconversion is expected to be about 90 percent completed, and fully accomplished by Spring, 1947.

(2) But the reconversion of productive facilities has been only part of the effort of manufacturing industries to gear their facilities for production for peacetime purposes. In addition industry has prepared programs of modernization and expansion designed to make Canadian industry more efficient, to serve better the domestic consumer and strengthen the position of this country in international trade. At the same time the large investment program planned by industry held promise of maintaining a high level of employment and income for the country in this and the coming year - unless interrupted by strikes or shortages of material. As the sample survey of manufacturing industries showed, not less than half of the firms surveyed indicated that they were embarking on programs of modernization and/or expansion of their productive facilities in the postwar period. Of these, about three-fifths have already completed their programs or expect to do so by the end of 1946. Most of the remaining companies expect to complete their modernization and expansion programs in 1947, though some have longer range projects extending into 1948 and 1949.

(3) During the first year that reconversion was in progress, large numbers of men and women either in the armed forces or formerly employed in war industries had moved to the production and distribution of peacetime goods and services. Between June 1st, 1945 and June 1st, 1946, approximately 620,000 servicemen had been discharged and 720,000 had been released from war work. In spite of the magnitude of this man-power shift, the number of unemployed was kept surprisingly low, never reaching more than about 270,000 out of a total working force of close to 4.8 million. The peak level of transitional unemployment was reached in March, and by August, 1946, as the forces of expansion grew, unemployment had declined by 100,000.

The sections which follow provide detailed information on the progress of reconversion, modernization and expansion by industries and by geographical areas.

Reconversion of Plants.

Questionnaires (Appendix O) were sent to 650 of the larger plants that were formerly engaged in war production (for coverage, see pp. 15 and 16

The survey showed that reconversion of production facilities was necessary in three-eighths of the reporting plants, and that it had already been completed in half of these plants by the end of February. A little over half of the plants with reconversion still in progress expected to complete it by the end of August, and four-fifths expected to do so by the end of 1946, making nine-tenths of all plants engaged in reconversion.

Three-fifths of the plants that were engaged in reconversion activities were being retarded by various shortages (p. 17). The most important retarding factor was delays in securing machinery and other equipment. Other factors less frequently listed were shortages of materials and difficulties in obtaining skilled labour. The estimates are subject to correction in the light of development of management-labour relations in Canada. Extensive strikes, such as the steel strike, may cause further considerable delays not accounted for in the estimates given.

Modernization and Expansion of Plants

A little under half of the reporting plants had postwar plans for modernizing or expanding their facilities (p. 18). Modernization programs were being undertaken in two-fifths of the plants and expansion programs in one-third of the plants. A little under ten percent of these plants had already completed their programs by the end of February. Half of those with programs in progress or in the planning stage expected to complete them by the end of 1946 and three-quarters expected to do so by the end of 1947. Supplementary evidence adduced subsequently indicates that a portion of the investment that was planned for 1946 has had to be deferred to 1947 because of material shortages and labour difficulties.

A little under half of the plants with modernization or expansion programs in progress were being retarded by shortages as compared with three-fifths in the case of reconversion (p. 18). This smaller proportion may be due in part to the fact that the programs of some of the plants were not sufficiently advanced to enable them to foresee some of the shortages that they may actually experience. As in the case of reconversion, the most important retarding factor was delays in obtaining machinery and other equipment. The other main cause of delay was lack of materials and parts,

chiefly building materials. Shortages of labour were relatively less important than in the case of reconversion.

The incidence of both modernization and expansion was about twice as high among the plants with more than one thousand employees as it was among those with less than five hundred employees (p. 21). On the other hand, the employment creating effects of modernization and expansion were proportionately greater among the smaller plants than they were among the larger plants. These results must be interpreted with caution since the labour savings effects of new investment programs are not known. But the survey seems to indicate that labour savings resulting from capital outlays on larger plants are likely to be greater than those resulting from new investments in smaller plants.

As a result of reconversion, modernization and expansion programs, the firms covered expected not only to maintain their employment but even to increase it -- although the increase was small, namely 3.4 percent over the May 1 level. On examination, however, it is found that these proportions understate somewhat the employment-creating effects of postwar expansion (p. 20). The bulk of the increase is expected to result from programs of modernization and expansion and little is due to reconversion. A little over half of the total increase was reported by plants which expected to complete their modernization and expansion programs by the end of 1946, but present indications are that this increase will not be realized fully because of the retarding effects of labour unrest and material shortages.

<u>Reconversion, Modernization and Expansion in Different Industries.</u>

Among the major industrial groups the number of plants requiring reconversion was proportionately greatest in the durable consumers' goods group (e.g., automobiles, radios, washing machines), somewhat higher than the overall average in the producers' goods group (e.g., structural steel, agricultural implements, railway rolling stock) and relatively low in the non-durable consumers' goods (e.g., food, primary textiles, clothing) and basic materials groups (e.g., base metals, rubber, pulp and paper) (p. 22). The greatest progress toward the completion of reconversion had been made in the basic materials group mainly because of the relatively minor nature of the reconversion that was required in most of these plants. A little more than average progress had been made in the producers' goods group

and somewhat less than average progress had been made in the durable consumers' goods group. Least progress had been made in the non-durable consumers' goods group, but this was mainly due to the situation in the clothing industry.

Within individual industries the degree to which reconversion was required was greatest among plants formerly engaged in war production but now turning to the production of automobiles, electrical apparatus, boilers and heating equipment, radio and domestic appliances. The number of plants with reconversion still in progress was proportionately highest in the electrical apparatus, automobile, clothing and radio industries. With the exception of automobiles, this was due to the fact that these industries were the ones most affected by shortages of machinery, equipment, parts, etc.

The incidence of modernization and expansion was highest in the durable consumers' goods group (p. 24). The non-durable consumers' goods group and the producers' goods group followed, trailed by the basic materials group. The concentration of expansion in the consumers' goods industries is mainly due to the need of these industries to introduce new technical devices and production methods which they were unable to adopt during the war. On the other hand, most of the industries in the producers' goods and basic materials groups expanded greatly during the war years. Their main problem now is the consolidation of their wartime gains.

Within individual industries the incidence of modernization and expansion was highest in the agricultural implements, plumbing supplies, household furnishings, domestic appliances, radio and primary textile industries and lowest in the aircraft, railway rolling stock, shipbuilding and base metals industries. The number of plants that were being retarded by shortages was proportionately highest in the clothing, agricultural implements, primary textile, pulp and paper, electrical apparatus and radio industries. These industries in particular are experiencing great difficulties in securing machinery and materials. The incidence of shortages was quite low in such industries as oil and gasoline, small tools, rubber, plumbing supplies, lumber, base metals, chemicals and automobiles.

The expected increase in employment resulting from the completion of reconversion, modernization and expansion was highest in the household furnishings, (12.4 percent), clothing (9.4 percent), primary textile (6.2 percent), radio (6.0 percent), boilers and heating equipment (5.8 percent) and electrical apparatus (4.6 percent) industries. Three-fifths of the total

increase was accounted for by the consumers' goods industries. Little or no increase in employment was expected to take place in the aircraft, primary iron and steel, shipbuilding and railway rolling stock industries as a result of postwar modernization and expansion. The main problem in these industries is the maintenance, as far as possible, of the high level of employment achieved during the war.

Reconversion, Modernization and Expansion in Different Regions.

In evaluating the results of the survey on a regional and local basis, some caution must be exercised because of variations in coverage. However, the coverage of the sample is sufficient to indicate general trends. Among the major regions the number of plants requiring reconversion was proportionately highest in Ontario (p. 63). This is explained by the large concentration of war production in that province. Good progress in reconversion had been made in Ontario, with Quebec, the Maritimes and British Columbia trailing behind. Only the Prairies had a better showing, but this was due to the fact that the extent of reconversion there was comparatively small. The incidence of both modernization and expansion was highest in Ontario because of the advantageous location of its large industrial centres in relation to the major portion of the Canadian market.(p. 66) Quebec was next in line. All but two of the plants that had completed their programs were located either in Ontario or Quebec.

The expected increase in employment was highest in Quebec (3.9 percent). This was due to the relative importance of the primary textile and clothing industries in that province. These two industries alone accounted for nearly one-third of the total expected increase. The expected increase in Ontario was just equal to the overall average of 3.4 percent and it was relatively low in the other regions. Three-fifths of the reported increase in Ontario was expected to take place by the end of 1946 as compared with two-fifths in Quebec. This was mainly due to the fact that most of the textile plants in Quebec that were undertaking expansion programs did not expect to complete them by the end of the year.

Reconversion, Modernization and Expansion in Different Localities.

Among the nine major industrial centres the number of plants requiring reconversion was proportionately highest in Windsor, Winnipeg, Kitchener-Waterloo and Toronto. It was lowest in Quebec and Vancouver because the main war industries in these centres either did not require any

significant amount of reconversion (shipbuilding), or have not been converted to peacetime uses (aircraft and munitions). Greater than average progress toward the completion of reconversion had been made in Winnipeg and Windsor and less than average progress had been made in the other centres. Shortages impeding the completion of reconversion programs were most felt in Kitchener-Waterloo, Hamilton and Toronto. Conditions were better in Winnipeg, Vancouver and Windsor.

The incidence of modernization and expansion was highest in Kitchener-Waterloo, Hamilton and Toronto, with substantial programs being undertaken or lined up in other parts of South-western Ontario such as St. Catharines, Peterborough, London, Brantford and Guelph. The incidence of modernization and expansion in Montreal was less than that of the areas mentioned above. An interesting feature is the expansion that is taking place mainly in smaller centres in the Province of Quebec, such as St. Jerome, Drummondville, and St. Johns as compared with developments in medium-sized centres in Ontario. A large portion of the more limited expansion that is taking place in the Prairie Provinces and B.C. was concentrated in Winnipeg and Vancouver.

The expected increase in employment was highest in Kitchener-Waterloo (6.1 percent) and Toronto (3.8 percent). It was about equal to the overall average in Montreal, Quebec and Hamilton and in the other four centres it ranged between 2.6 and 2.8 percent. In general, the largest increases in employment were expected to take place in the medium sized centres in South-western Ontario and in the smaller communities in Quebec.

In the main, the present survey is illustrative of what is happening in a wide range of Canadian manufacturing industries. The survey indicates that during the first postwar year the manufacturing industry has shown a vigour not unlike that demonstrated during the war years. But vigour in formulating business policy and administering it is only part of the picture. The significant modernization and expansion process of Canadian manufacturing industries at present under way indicates the growing realization of the Canadian entrepreneur that the success of his undertaking depends in a large measure on the degree of efficiency with which he can operate. He cannot afford to neglect the introduction of new technical devices or new production methods if these will permit him to produce more efficiently. Few businessmen, and this is particularly true for manufacturing industries, can afford to remain behind technical progress long without paying the penalties of the

inefficient in losing markets and outlets. During the war years, some industries made great technical progress, while others remained in enforced inactivity. But with the return to peace this inactivity has been transformed into a definite trend to regain lost ground and to strengthen the industrial structure at all levels, managerial, technical and manual.

II. OVERALL PROGRESS OF RECONVERSION, MODERNIZATION AND EXPANSION IN SELECTED MANUFACTURING INDUSTRIES

A. Coverage of the Survey

The questionnaire (Appendix D) which formed the basis of the survey was sent to 650 plants. Of these, 643 were able to provide the desired information. These firms employed about 380,000 people at that time or a little under 40 per cent of the total employment in manufacturing. They include nearly all of the plants with more than one thousand employees and at least half of those with more than five hundred employees.

The survey includes most of the larger plants in which major reconversion of production facilities was necessary except for some one hundred war plants which have been either temporarily or permanently closed down since the end of the war. Nearly all of these are Government owned plants of which about one-quarter are being retained by the Government for various purposes while a large majority of the other three-quarters have already been sold to private owners or are under negotiation for sale. No allowance is made in the survey for the reconversion required to bring these plants into production on a peacetime basis.

Since the survey included primarily firms which were major war contractors, the coverage is much higher in the heavy producers' goods industries than it is in most of the consumers' goods industries (see Table 1). The survey can be considered to provide a representative sample for a number of important industries taken individually, but it cannot be regarded as completely representative of progress in all manufacturing industries. In general, the sample is quite representative for nearly all of the industries in which the coverage is higher than the overall average, but this is not true of some of the industries in which the coverage is low. For instance, in the food and tobacco industry the sample is heavily weighted with meat packing, fish packing and tobacco processing plants, in the footwear industry it is heavily weighted with plants producing rubber footwear and in the lumber industry it is heavily weighted with plywood plants.

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The questionnaire [illegible] which [illegible] of the survey was sent to [illegible] plants. Of these, [illegible] to provide the desired information. These firms employed [illegible] people [illegible] per cent of the total [illegible] in manufacturing. They included nearly all of the plants with more [illegible] employees and [illegible] half of those with more than five hundred employees.

The survey included [illegible] of the larger plants in which major conversion of production [illegible] necessary except for [illegible] and new plants which have been [illegible] temporarily or permanently [illegible] from since [illegible] end of the war. Nearly [illegible] of these are [illegible] part of which [illegible] the [illegible] various purposes [illegible] a large majority of the other [illegible] already been sold to private owners or are under negotiation for [illegible] allowance is made in the survey for the reconversion required to bring [illegible] plants into production on a peacetime basis.

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Table 1. EMPLOYMENT IN MANUFACTURING BY INDUSTRIES

Industry	D.B.S. Survey Mar. 1, 1946	D.R.S. Sample Survey Mar. 1, 1946	Col. 2 as a percent of Col. 1
All Industries	956,670(1)	378,837	39.6
Rubber and Rubber Goods (including tires and rubber footwear)	23,495	21,505	91.1
Agricultural Implements	13,829	12,409	89.7
Automobiles (excluding tires)	32,350	28,704	88.7
Aircraft	11,784	10,336	87.7
Electrical Apparatus (including radio)	42,110	33,804	80.3
Primary Textiles	49,819	36,347	72.9
Shipbuilding	27,329	18,899	69.1
Petroleum Products	9,441	5,742	60.8
Non-ferrous Metals	40,362	17,542	43.4
Pulp and Paper	41,035	17,131	41.8
Chemicals	36,086	12,618	35.0
Food and Tobacco	121,167	24,538	20.2
Clothing (including leather footwear)	105,415	20,477	19.4
Lumber	34,004	3,812	11.2
Furniture	13,711	1,371	10.0

Source: Data referred to as "D.B.S. Survey" are taken from The Employment Situation, March, 1946, Dominion Bureau of Statistics.

The results of the survey must be interpreted with caution on a regional and local basis because the coverage is considerably higher in Ontario and Quebec than it is in the other regions (see Table 2). The survey also provides a relatively more balanced industrial sample for the central provinces than it does for the other regions in each of which the sample is rather heavily weighted in favour of two or three industries. Thus the results of the survey, while providing a reasonably good picture of the extent and progress of post-war modernization and expansion in Ontario and Quebec, probably tend to understate somewhat the relative amount of expansion that is taking place in the other regions, particularly in British Columbia.

Table 2. EMPLOYMENT IN MANUFACTURING BY REGIONS

	D.B.S. Survey Mar. 1, 1946	D.R.S. Sample Survey Mar. 1, 1946	Col. 2 as a percent of Col. 1
Canada	956,670	378,837	39.6
Maritime Provinces	48,557	15,827	32.6
Quebec	311,118	120,879	38.9
Ontario	462,519	201,650	43.6
Prairie Provinces	67,639	17,994	26.6
British Columbia	66,837	22,487	33.6

Source: Data referred to as "D.B.S. Survey" are taken from The Employment Situation, March, 1946, Dominion Bureau of Statistics.

(1) The D.B.S. Employment Survey covers on the average about 90 percent of the total number employed in manufacturing.

B. Extent of Reconversion, Modernization and Expansion

With the switchover to peacetime production, 60 percent of the 643 reporting plants were faced with the problem of physical reconversion of their facilities or had plans for modernization or expansion. Of these 388 plants, a little over one-fifth required reconversion but were not intending to modernize or expand their facilities. A little under two-fifths did not require reconversion but were planning to modernize or expand. The other two-fifths required reconversion and were also undertaking programs of modernization or expansion. Thus 157 or two-thirds of the 239 plants requiring reconversion were planning to modernize or expand whereas only 149 or a little over one-third of the 404 plants with no reconversion problem were planning to do so. This indicates that there is a significant degree of correlation between the two types of activity.

C. Progress of Reconversion

A total of 239 or three-eighths of the reporting plants stated that reconversion of their production facilities was necessary in order to meet peacetime demands for their products. Reconversion had already been completed in 121 or a little over half of these plants by the end of February and in the other 118 plants it was still in progress. The number of plants in the latter group was proportionately highest in the electrical apparatus, automobile, clothing and radio and communications industries which together accounted for over two-fifths of the total. About 12 percent expected that reconversion would be complete by the end of April, 53 percent by the end of August and 82 percent by the end of 1946. One-third of the remaining 21 plants required a somewhat longer period and the other two-thirds were unable to state how long it would take them to complete their reconversion.

Three-fifths of the plants with reconversion still in progress stated that its completion was being retarded by various shortages, the clothing, machinery, electrical apparatus and radio and communications industries being the ones most affected. The most important retarding factor was delays in obtaining necessary equipment and tools. This type of shortage was impeding reconversion in 42 plants of which three-fifths were in the machinery, electrical apparatus, clothing and automobile industries. Slow deliveries from the United States due to labour unrest was frequently given as the cause of equipment shortages. Shortages of materials and parts were delaying reconversion in 21 plants of which more than half were in the clothing,

electrical apparatus and machinery industries. Difficulties in obtaining skilled labour of various types were listed by 20 plants with the clothing, footwear and castings and forgings industries accounting for nearly half of the total. Thus there was quite a marked concentration of each of the principal types of shortages within a relatively few industries. Another retarding factor, though of minor significance, was delays in the removal of surplus Crown equipment which was impeding reconversion in a few plants.

On the whole the survey indicates that reconversion had made reasonably good progress up to the end of February in spite of the retarding influence of labour unrest in the United States. Most of the plants with reconversion still in progress expected to complete it before the end of 1946, but it must be emphasized that their estimates do not include any allowance for the retarding effects of the coal strike in the United States and of the steel and other strikes in Canada.

D. Progress of Modernization and Expansion

A total of 306 or 47.6 percent of the reporting plants had post-war plans for modernizing or expanding their facilities, the number with such plans being proportionately highest in the agricultural implements, plumbing supplies, household furnishings, domestic appliances, radio and primary textile industries and lowest in the aircraft, railway rolling stock, shipbuilding and base metals industries. Of these 29 percent were intending to modernize their plants but not to expand them, 17 percent were undertaking expansion programs which did not involve any significant amount of modernization while the remaining 54 percent were planning to both modernize and expand their facilities. A little under 10 percent had already completed their programs by the end of February. Of the other 278 plants with programs in progress or in the planning stage, 5 percent expected to complete them by the end of April, 24 percent by the end of August, 54 percent by the end of 1946 and 75 percent by the end of 1947. One-quarter of the remaining 68 plants had longer range programs. The remainder were unable to state how long it would take them to complete their programs. The average time required for the completion of modernization did not vary significantly from that required for the completion of expansion.

A little under half of the 278 plants in which modernization or expansion, or both, is in progress stated that the completion of their plans was being impeded by various shortages. As in the case of reconversion, the

most important retarding factor was delays in obtaining machinery and other equipment. This type of shortage was reported by 100 plants of which half were in the primary textile, clothing, pulp and paper, electrical apparatus and radio industries. Lack of materials and parts, chiefly building materials, was impeding the programs of 50 plants of which more than two-fifths were in the primary textile, clothing, radio, electrical apparatus and machinery industries. Shortages of labour were retarding 26 plants with the primary textile, clothing and footwear industries accounting for nearly half of the total. Thus, as in the case of reconversion, each of the principal types of shortages was concentrated to a considerable extent within a relatively few industries. It is a significant indication of wartime industrial expansion that only 4 plants were experiencing difficulties in securing additional factory space.

E. Effect of Completion of Reconversion, Modernization and Expansion on Employment

On March 1, 1946, the total employment of the 643 reporting plants was 378,800 and their expected employment on May 1 was 382,700.(1) An increase in employment of 13,000 or 3.4 percent over the May 1 forecast was expected to result from the completion of reconversion, modernization and expansion of which less than 5 percent was accounted for by plants with reconversion still in progress which were not intending to modernize or expand. A little over 55 percent of the total increase was reported by plants which expected to complete their modernization and expansion programs by the end of 1946. But since a considerable number of the plants reporting an increase in employment did not state when they expected to complete their programs, the proportion of the total increase that will be realized by the end of 1946 may be somewhat greater than 55 percent. The expected increase was proportionately highest in the household furnishings, clothing, primary textile, radio and boilers and heating equipment industries and lowest in the aircraft, basic iron and steel, shipbuilding, railway rolling stock and base metals industries.

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(1) The actual employment of these 643 plants on May 1, 1946 was only 600 greater than their forecast for that date so that the latter may be taken to provide a satisfactory base for calculating the percentage increase that was expected to result from the completion of reconversion, modernization and expansion.

A number of factors must be taken into account in evaluating the employment creating effects of post-war expansion as shown by the survey. The 13,000 estimate does not include any allowance for the increases in employment that were taking place in the 44 plants which had already completed their modernization and expansion programs by March 1 or expected to do so by May 1. Of the other 262 plants with programs in progress, only half stated that their completion would result in an increase in employment. A little over one-third stated definitely that no increase in employment would result. However, a number of the plants in this group also stated that their expansion programs would enable them to maintain their employment at the increased wartime level instead of reducing it as would otherwise have been necessary. While this does not show up in the figures for increased employment, it is a significant element in the maintenance of a high level of employment in the post-war period. Most of the remaining 36 plants stated that they were not yet in a position to determine whether the completion of their programs would result in an increase in employment.

The resulting understatement of the employment creating effects of post-war expansion is augmented by several other factors. As previously indicated, the coverage of the survey is relatively low in some industries such as clothing, household furnishings, food and lumber in which considerable expansion is taking place and high in a number of industries such as aircraft, shipbuilding, railway rolling stock and basic iron and steel in which current expansion is small. Moreover, it no longer includes any of the Government-owned plants which are being sold to private owners with the exception of those which have already been purchased by the firms that operated them during the war. Thus the expected increase of 13,000 only includes a small allowance for the increase in employment over the present level which will result from the utilization of these plants for peacetime production. Finally, the survey results do not give any indication of the expansion that is taking place through the entry of new firms into the manufacturing field.

F. <u>Incidence of Modernization and Expansion by Size of Plant</u>

The incidence of both modernization and expansion was considerably higher among the larger plants than it was among the smaller ones (see Table 3). It was about twice as high among the plants with more than one thousand employees as it was among those with less than five hundred employees. The plants with more than one thousand employees represented only 14.8 percent of

the reporting plants, but they accounted for 24 percent of the plants with post-war plans for modernization and 23.6 percent of those with post-war plans for expansion.

Table 3. INCIDENCE OF MODERNIZATION AND EXPANSION BY SIZE OF PLANT

Number of Employees March 1, 1946	Total Number of Plants	Post-war plans for Modernization		Post-war plans for Expansion	
		Number	%	Number	%
1- 499	424	142	33.5	121	28.5
500- 999	124	51	41.4	44	35.5
1,000- 4,999	91	58	63.7	49	53.8
over 5,000	4	3	75.0	2	50.0
All plants	643	254	39.5	216	33.6

On the other hand, the employment creating effects of post-war modernization and expansion were considerably greater among the smaller plants than they were among the larger ones (see Table 4). The expected increase among the plants with less than five hundred employees was 90 percent greater than it was among those with more than one thousand employees. These results must be interpreted with considerable caution since the survey did not provide any data on the relation between post-war capital expenditures and total capital by size of plant, but they would seem to indicate that the investment programs of the larger plants are of a labour saving nature to a greater degree than is the case among the smaller plants.

Table 4. EXPECTED INCREASE IN EMPLOYMENT BY SIZE OF PLANT

Number of Employees May 1, 1946	Expected Employment on May 1, 1946	Expected Increase over May 1, 1946	
		Number	Percent
1- 499	103,322	4,882	4.7
500- 999	80,494	3,166	3.9
1,000-4,999	167,464	4,452	2.7
over 5,000	31,432	500	1.6
All plants	382,712	13,000	3.4

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[illegible]
[illegible]

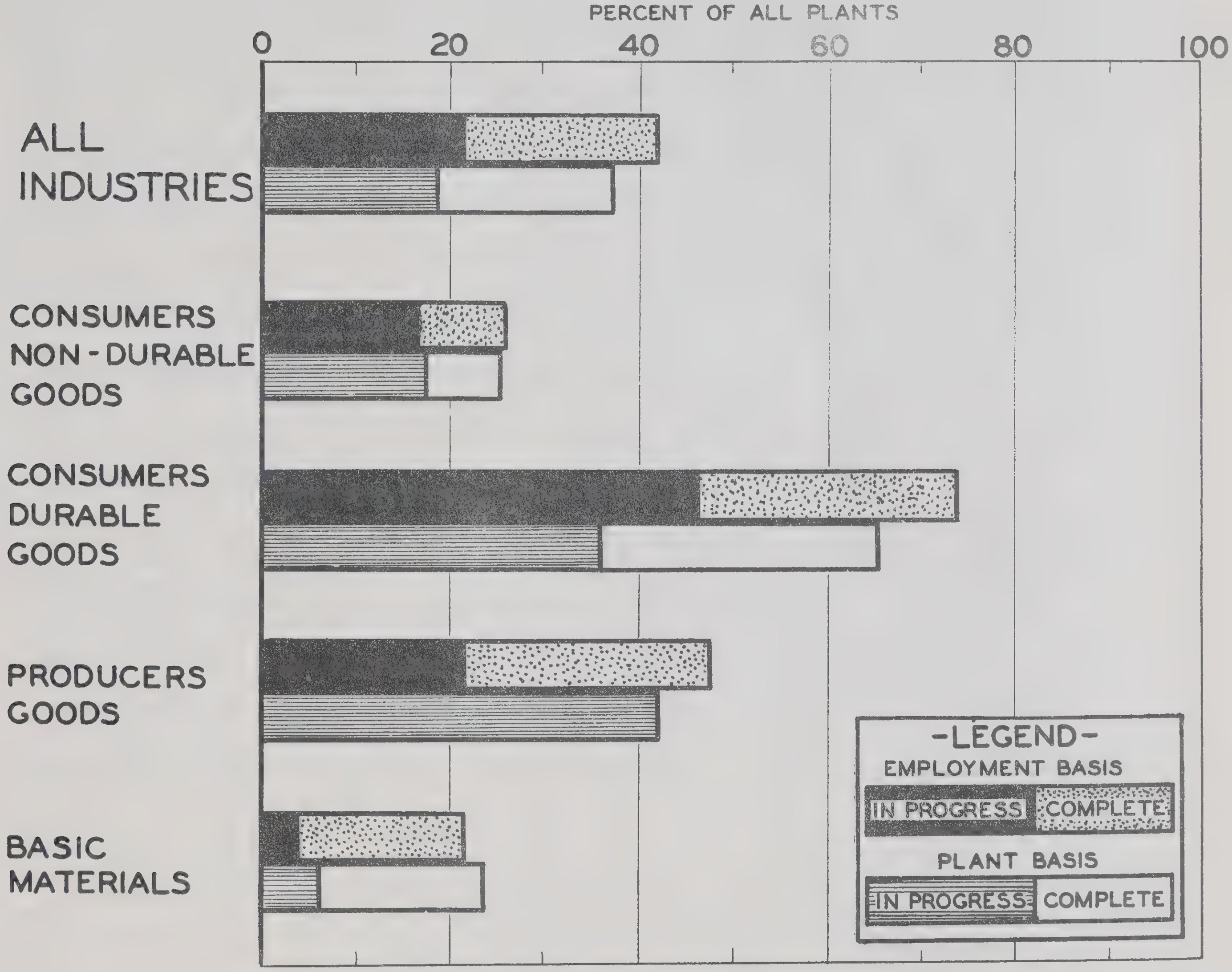
III. PROGRESS OF RECONVERSION, MODERNIZATION AND EXPANSION BY INDUSTRIES

A. SUMMARY BY MAJOR INDUSTRIAL GROUPS

The relative extent and progress of reconversion in the four major industrial groups is summarized in the following chart both on the basis of the proportion of the plants in each group requiring reconversion and on the basis of the proportion of their employment to the total employment of the plants in the group.

FIGURE I

EXTENT AND PROGRESS OF RECONVERSION BY MAJOR INDUSTRIAL GROUPS



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In industry as a whole the extent to which reconversion was required was a little greater on the employment basis than it was on the plant basis, but the progress which had been made toward the completion of reconversion was practically the same on the two bases. Slightly less than half of reconversion activity had been completed by the end of February on the employment basis and slightly more than half on the plant basis. Within the four major industrial groups the extent and progress of reconversion was substantially the same on

both bases. The only significant difference was in the durable consumers' goods group in which the extent of reconversion was considerably greater on the employment basis. Only a little over one-third of reconversion activity had been completed on the employment basis as compared with a little under half on the plant basis. However, this was entirely accounted for by one large automobile plant. If this one plant is excluded, the proportions are almost the same on the two bases.

The relative extent and progress of reconversion among the various groups was also substantially the same on both bases. In both cases the extent of reconversion was greatest in the durable consumers' goods group, somewhat higher than the overall average in the producers' goods group and relatively low in the other two groups. The greatest progress toward the completion of reconversion had been made in the basic materials group because of the relatively minor nature of the reconversion that was required in most of these plants. A little more than average progress had been made in the producers' goods group and somewhat less than average progress had been made in the durable consumers' goods group. Least progress had been made in the non-durable consumers' goods group, but this was almost entirely due to the slow progress which had been made in the clothing industry.

The average time required for the completion of reconversion was about proportional to the progress which had been made up to the end of February except in the durable consumers' goods group (see Table 5). In the non-durable consumers' goods group only 81 percent of reconversion activity was expected to be complete by the end of 1946, a considerably lower proportion than in any of the other groups. On the other hand, the plants which did not expect to complete their reconversion by the end of 1946 constituted only five percent of the reporting plants in this group. While relatively slow progress had been made in the durable consumers' goods group up to the end of February, the bulk of the plants with reconversion still in progress expected to complete it by the end of August and reconversion was expected to be virtually complete by the end of 1946. The average time required in the producers' goods group was just about equal to the overall average. In the basic materials group continued progress at a greater than average rate was expected. All but one of the plants in this group expected that reconversion would be complete by the end of 1946.

Table 5 AVERAGE TIME REQUIRED FOR THE COMPLETION OF RECONVERSION BY MAJOR INDUSTRIAL GROUPS

Industrial Group	Number of Plants Requiring Reconversion	Percent in Which Reconversion was Expected to be Complete by		
		End of Feb. 1946 (Actual)	End of Aug. 1946 (Expected)	End of 1946 (Expected)
Non-durable Consumers' Goods	37	32.4	59.5	81.1
Durable Consumers' Goods	53	45.3	86.8	96.2
Producers' Goods	117	52.1	75.2	89.7
Basic Materials	32	75.0	84.4	96.9
All Industries	239	50.6	76.6	90.8

The extent and progress of post-war modernization and expansion in the four major industrial groups is shown in Figures 2 and 3. The overall incidence of both modernization and expansion was considerably higher on the employment basis than it was on the plant basis. This is due to the fact that the incidence of modernization and expansion was considerably higher among the larger plants than it was among the smaller ones. When allowance is made for this factor, the relative incidence of modernization and expansion among the various groups was quite similar on both bases with the exception that the incidence of modernization in the producers' goods group was somewhat higher on the employment basis and the incidence of expansion in the basic materials group on this basis was somewhat lower.

Taking the two criteria into account, the incidence of both modernization and expansion was highest in the durable consumers' goods group. It was somewhat higher than the overall average in the non-durable consumers' goods group, somewhat lower in the producers' goods group and lowest in the basic materials group. The most progress toward the completion of modernization and expansion had been made in the durable consumers' goods group. Somewhat more than average progress had been made in the producers' goods group and less than average progress had been made in the other two groups.

The relative time required for the completion of modernization and expansion among the various industrial groups was quite similar to the relative time required for the completion of reconversion with the exception of the basic materials group (see Table 6). As in the case of reconversion, the average time required in the non-durable consumers' goods group was

FIGURE 2

EXTENT AND PROGRESS OF MODERNIZATION
BY MAJOR INDUSTRIAL GROUPS

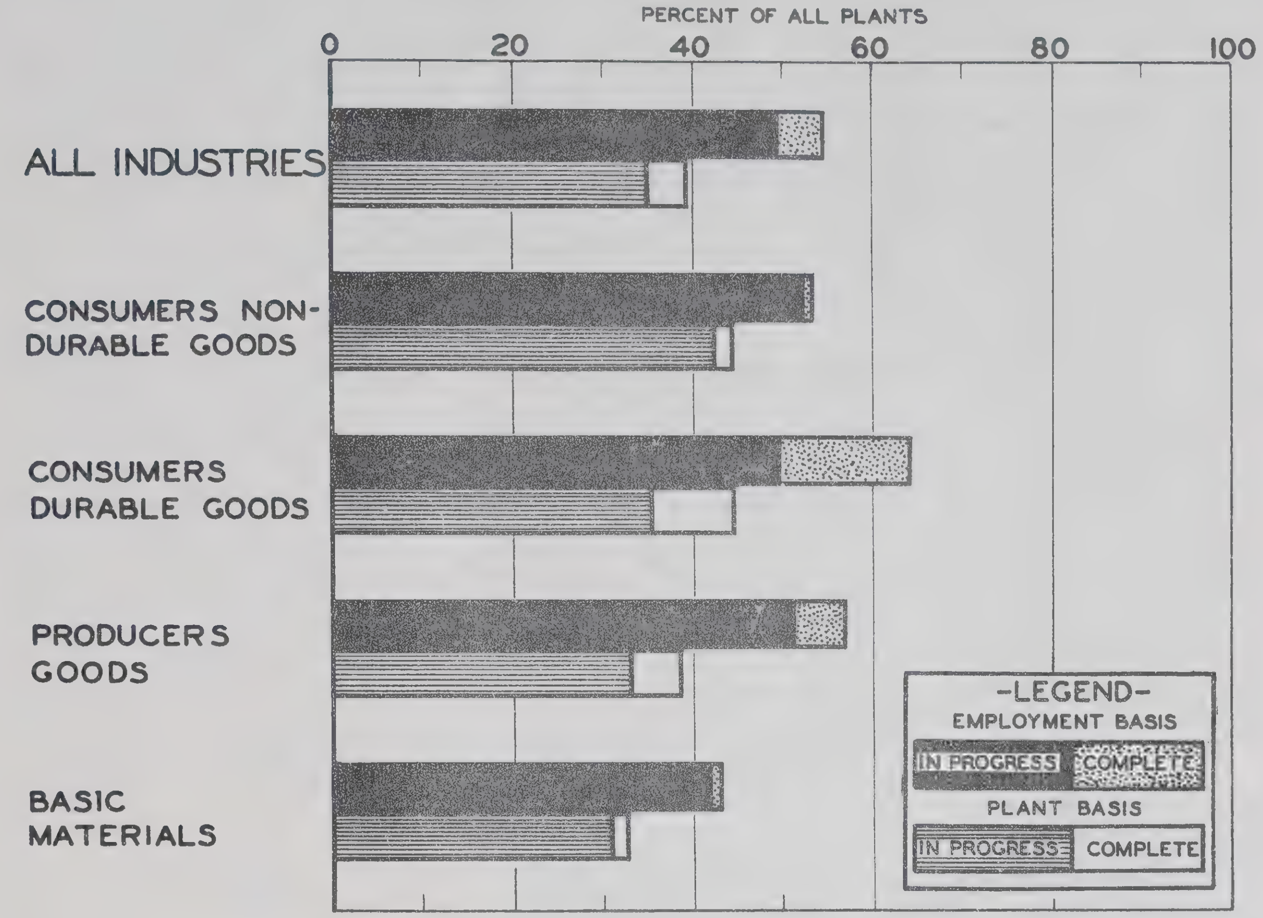
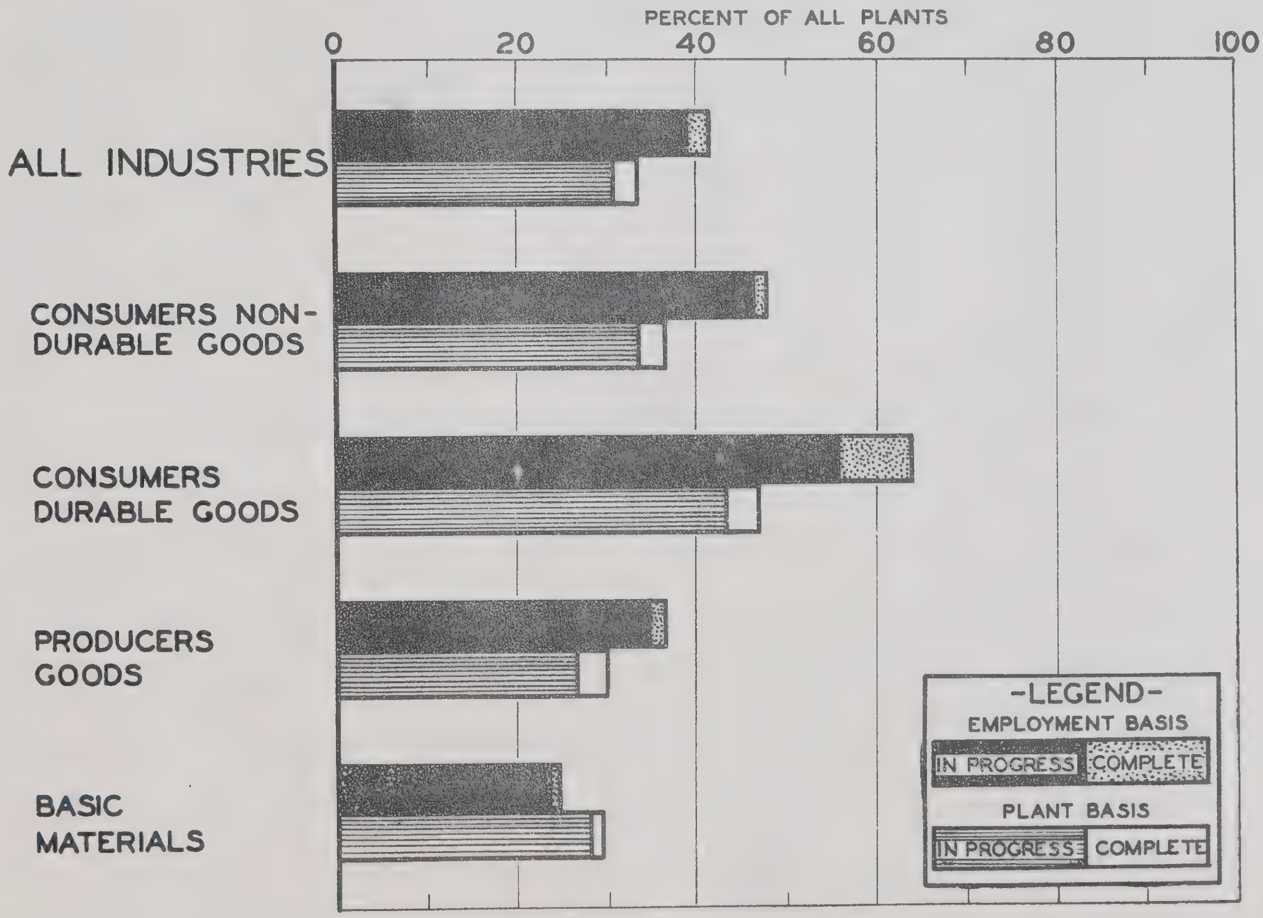


FIGURE 3

EXTENT AND PROGRESS OF EXPANSION
BY MAJOR INDUSTRIAL GROUPS



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longer than that for any of the other groups. This was mainly due to the fact that the primary textile and clothing industries were among those most affected by shortages. The average time required in the durable consumers' goods group, on the other hand, was shorter than that for any of the other groups. Fully four-fifths of post-war modernization and expansion in this group was expected to be complete by the end of 1946 and nine-tenths by the end of 1947. The average time required in the producers' goods group was just about equal to the overall average while in the basic materials group it was a little longer than the overall average in contrast to the case of reconversion. This was due to the relatively long range nature of the programs of most of the plants in the pulp and paper and base metals industries. In each of the industrial groups about one-third of the plants which did not expect to complete their programs by the end of 1947 had longer range programs while the remainder were unable to state how long they would require.

Table 6 AVERAGE TIME REQUIRED FOR THE COMPLETION OF MODERNIZATION AND EXPANSION BY MAJOR INDUSTRIAL GROUPS

Industrial Group	Number of Plants with Post-War Plans for Modernization and/or Expansion	Percent in Which Programs were Expected to be Complete by		
		End of Feb. 1946 (Actual)	End of 1946 (Expected)	End of 1947 (Expected)
Non-durable Consumers' Goods	77	5.2	44.2	70.1
Durable Consumers' Goods	50	14.0	82.0	88.0
Producers' Goods	121	12.4	59.5	77.7
Basic Materials	58	3.5	53.5	75.9
All Industries	306	9.2	58.2	77.1

The increase in employment which was expected to result from the completion of reconversion, modernization and expansion was highest in the non-durable consumers' goods group (5.2 percent) and the durable consumers' goods group (4.7 percent). Since the incidence of modernization and expansion was considerably higher in the durable consumers' goods group than it was in the non-durable consumers' goods group, this means that the employment creating effects of post-war capital expenditures are much greater in the non-durable consumers' goods industries. The expected increase in employment was relatively low in the producers' goods group (2.5 percent) and the basic materials group (2.0 percent). The proportion of the expected

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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

increase that will be realized by the end of 1946 was highest in the durable consumers' goods group (79 percent) and the basic materials group (60 percent) and lowest in the non-durable consumers' goods group (44 percent) and the producers' goods group (48 percent).

In summary, the survey showed that the plants in which reconversion of production facilities was required were mainly concentrated in the durable consumers' goods and producers' goods industries. Reconversion was expected to be about seven-eighths complete in the consumers' goods industries by the end of August and virtually complete by the end of 1946. In the producers' goods industries it was expected to be three-quarters complete by the end of August and nine-tenths complete by the end of 1946. The survey also showed that post-war modernization and expansion is taking place mainly in the consumers' goods industries because most of these industries were unable to expand during the war. Considerable expansion is also taking place in such producers' goods industries as agricultural implements, plumbing supplies, machinery and electrical apparatus. Post-war modernization and expansion were expected to be four-fifths complete by the end of 1946 in the durable consumers' goods industries and about nine-tenths complete by the end of 1947. In the non-durable consumers' goods industries, however, less than half of the programs were expected to be complete by the end of 1946 and only seven-tenths of them were expected to be complete by the end of 1947.

It bears emphasis that these expectations have been based on the assumptions of a reasonable supply of manpower, raw materials, machinery and equipment and, therefore, do not take account of the retarding effects of the steel, seamens', coal and other strikes which have taken place since March. These recent developments and their implications for future industrial behaviour must be borne in mind when considering the time schedule of investment intentions. But in spite of delays and difficulties that might have to be faced, the survey illustrates the vigour of the expansionist forces in the Canadian economy.

B. BY INDIVIDUAL INDUSTRIES

1. NON-DURABLE CONSUMERS' GOODS

(a) PRIMARY TEXTILES

Table 7 · SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN PRIMARY TEXTILES

	Primary Textiles		All Industries
	Number Reporting	Percent Reporting	Percent Reporting
Total	51	100	100
Reconversion not required	43	84	62.5
Reconversion complete	4	8	19
Reconversion in progress	4	8	18.5
Reconversion retarded by shortages	2	4	11
Post-war plans for modernization	29	57	39.5
Post-war plans for expansion	17	33	33.5
Post-war plans for mod. and exp.	14	27.5	25.5
Mod. and/or exp. in progress	31	61	43
Mod. and/or exp. retarded by shortages	21	41	21.5

The coverage in this industry is very high and it is quite representative of the industry as a whole. Relatively little reconversion was necessary and average progress had been made toward its completion. One plant was being retarded by slow delivery of equipment and one by a shortage of labour, but these shortages were only minor in nature. One plant expected to complete its reconversion activities by the end of May and all of the other 3 plants expected to do so by the end of 1946.

The incidence of modernization was very high with primary textiles ranking fourth highest in this respect, but the incidence of expansion was no higher than the overall average. Nearly all of the plants that were expanding were also modernizing. The average time required for the completion of modernization and expansion was considerably longer than the average for all industries. Of the 31 plants with programs in progress, only 5 expected to complete them by the end of August and only 9 expected to do so by the end of 1946. Half of the other 22 plants expected to complete their programs during 1947, 6 had longer range programs and the remaining 5 plants were unable to state how long they would require.

The main reason why so few plants expected to complete their programs this year was the high incidence of shortages. The only industries in which it was higher were clothing and agricultural implements. The chief retarding

factor was slow delivery of textile machinery, mainly from the United States, which was delaying the programs of 17 plants. The shortage of building materials was retarding 5 plants while 5 were being delayed by shortages of labour. In addition, current production was being impeded in a number of plants by a shortage of labour and in a few cases by shortages of raw materials. If these factors were not hindering the full utilization of existing facilities, more of the plants in this group would probably be expanding at the present time.

The employment creating effects of post-war expansion were greater than in any other industry except household furnishings and clothing. The expected increase was of the order of 6.2 percent. The increase was quite widely distributed with more than two-thirds of the plants with programs in progress reporting a resulting increase in employment. A little over half of the total increase was accounted for by plants located in Quebec. Ontario accounted for one-third and New Brunswick for the remainder.

(b) CLOTHING

Table 8 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN CLOTHING

	Clothing		All Industries
	Plants Reporting	Percent Reporting	Percent Reporting
Total	40	100	100
Reconversion not required	23	57.5	62.5
Reconversion complete	3	7.5	19
Reconversion in progress	14	35	18.5
Reconversion retarded by shortages	11	27.5	11
Post-war plans for modernization	18	45	39.5
Post-war plans for expansion	18	45	33.5
Post-war plans for mod. and exp.	15	37.5	25.5
Mod. and/or exp. in progress	18	45	43
Mod. and/or exp. retarded by shortages	15	37.5	21.5

The coverage in this industry is relatively low and while it provides a good cross-section of plants producing men's clothing, it is less representative as regards women's and children's clothing. It also includes several plants producing canvas goods. The number of plants requiring reconversion was somewhat higher than the overall average, but in this respect the sample is not representative of the industry as a whole since it is heavily weighted with plants that were producing clothing for the armed

forces during the war. Even when allowance is made for this factor, however, it is significant that only 20 percent of the plants requiring reconversion had completed it by the end of February as compared with the overall average of a little over 50 percent. This was mainly due to the fact that the number of plants affected by shortages was higher than in any other industry. The incidence of all of the principal types of shortages was heavy with 6 plants reporting a shortage of equipment, 5 a shortage of labour and 5 a shortage of materials. Three of the plants in this latter group were having difficulties in securing allocations of civilian cloth because they had been entirely engaged in military production since the early part of the war and present quotas are based on 1941 purchases. In spite of these numerous difficulties, however, the average time required for completion of reconversion was only about 7 months and nearly all of the plants expected to complete their reconversion by the end of 1946.

While the incidence of modernization was not much higher than the overall average, the incidence of expansion was considerably higher since almost all of the plants that were modernizing were also expanding. As in the case of reconversion, the number of plants that were being retarded by shortages was proportionally higher than in any other industry. The chief retarding factor was lack of equipment which was listed by 11 of the 15 plants experiencing shortages. Labour and material shortages (chiefly raw materials rather than building materials) were each affecting 4 plants. Two plants in the Kitchener area have had to build branch plants in other towns instead of expanding their main plants because of the labour shortage in that area. In spite of these difficulties, however, the number of plants that expected to complete their programs by the end of 1946 was equal to the overall average of 54 percent and only one plant reported a program extending beyond 1947. More of the plants in this industry would probably be expanding at the present time if it were not for the shortages of labour and raw materials which are impeding current production in a number of firms.

The employment creating effects of post-war expansion activity were greater than in any other industry except household furnishings. The expected increase of 9.4 percent was more than two and a half times higher than the average for all industries. A little under half of the increase will be realized this year. While two-thirds of the increase was accounted for by 5 plants (of which 3 were in Montreal), almost all of the expanding plants

[illegible]

reported some increase in employment. Quebec accounted for two-thirds of the total increase and Ontario accounted for the remainder.

(c) FOOTWEAR

Table 9 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN FOOTWEAR

	Footwear		All Industries
	Plants Reporting	Percent Reporting	Percent Reporting
Total	17	100	100
Reconversion not required	8	47	62.5
Reconversion complete	4	23.5	19
Reconversion in progress	5	29.5	18.5
Reconversion retarded by shortages	3	17.5	11
Post-war plans for modernization	8	47	39.5
Post-war plans for expansion	7	41	33.5
Post-war plans for mod. & exp.	6	35	25.5
Mod. and/or exp. in progress	9	53	43
Mod. and/or exp. retarded by shortages	5	29.5	21.5

This group includes both rubber and leather footwear and since it is heavily weighted with plants producing rubber footwear and men's leather shoes, it is not very representative of the industry as a whole. The number of plants in which reconversion was necessary was considerably higher than the overall average, but this is largely due to the fact that the sample includes mainly plants which were producing footwear for the armed forces during the war. While only 4 of the 9 plants requiring reconversion had completed it, there were no serious obstacles to its early completion in the other 5 plants. Two plants were being delayed by slow delivery of machinery and 2 by shortages of labour, but the average time required for the completion of reconversion was only 4 months and the longest period required was 8 months.

This industry has fairly extensive plans for both modernization and expansion and most of the plants that are modernizing are also expanding. None of them had completed their programs by the end of February and only one-third expected to be able to do so this year. The majority expected to complete their post-war plans during 1947. The number affected by shortages was somewhat higher than the overall average. Three plants were being delayed by slow delivery of machinery and 3 by a shortage of skilled labour. One plant was being retarded by the shortage of building materials, one by difficulties in securing additional factory space and one by inability to secure a municipal building permit.

[illegible]

[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	1	[illegible]
[illegible]	23.5	4	[illegible]
[illegible]	[illegible]	5	[illegible]
10	11.5	5	[illegible]
20.[illegible]	47	6	[illegible]
29.[illegible]	41	7	[illegible]
30.5	25	8	[illegible]
45	63	9	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]

In group [illegible] and Leather Footwear are also [illegible] rubber footwear and [illegible] of the country as a whole. The [illegible] [illegible] as in the first [illegible] [illegible] the early condition in the [illegible] [illegible] needed for the [illegible] [illegible] period [illegible]

[illegible]

[illegible] shortage of skilled labour. [illegible] of building [illegible]

The employment creating effects of post-war expansion were rather small in relation to the volume of activity that is being undertaken. The expected increase was only half as great as the overall average of 3.4 percent and was limited to 2 plants. However, employment in this industry is expanding through the fuller utilization of existing facilities. The 17 reporting plants expected to increase their total employment by 325 between March 1 and May 1 and 3 of the plants with no plans for modernization or expansion were intending to further increase their employment by a total of 175 over their May 1 forecasts.

(d) FOOD AND TOBACCO

Table 10 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN FOOD AND TOBACCO

	Food and Tobacco		All Industries
	Plants Reporting	Percent Reporting	Percent Reporting
Total	40	100	100
Reconversion not required	37	92.5	62.5
Reconversion complete	1	2.5	19
Reconversion in progress	2	5.0	18.5
Reconversion retarded by shortages	1	2.5	11
Post-war plans for modernization	11	27.5	39.5
Post-war plans for expansion	12	30	33.5
Post-war plans for mod. & exp.	8	20	25.5
Mod. and/or exp. in progress	15	37.5	43
Mod. and/or exp. retarded by shortages	9	22.5	21.5

The plants in this group consist almost entirely of meat packing plants (23), fish packing plants (7), tobacco processing plants (3), and plants producing candies (3). While the coverage is very high in meat packing and fairly high in fish packing and tobacco processing, it is not all representative of the industry as a whole. Very little reconversion was necessary in these plants and there were no factors of any importance retarding its early completion in the 2 plants in which it was still in progress.

While the incidence of modernization was considerably lower than the average for all industries, the incidence of expansion was not much lower, this in spite of the expansion in meat packing which took place during the war. The number of plants affected by shortages was somewhat higher than the overall average. Difficulties in securing machinery and equipment were retarding 6 plants while 4 were being delayed by the shortage of building materials. No shortages of labour were reported. While none of the plants had completed

[illegible]

[illegible]

[illegible]

[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

their programs, over half expected to do so by the end of this year and none reported a program extending beyond 1947.

The anticipated decline of 1,000 in total employment between March 1 and May 1 was entirely due to the seasonal decline in meat and fish packing. The expected increase of 2.6 percent resulting from expansion was lower than the overall average, but this would probably not be the case if the sample were more representative of the food industry as a whole. Nearly all of the increase in employment is expected to take place during 1946.

2. DURABLE CONSUMERS' GOODS

(a) HOUSEHOLD FURNISHINGS

Table 11 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN HOUSEHOLD FURNISHINGS

	Household Furnishings		All Industries
	Plants Reporting	Percent Reporting	Percent Reporting
Total	7	100	100
Reconversion not required	5	71	62.5
Reconversion complete	1	14.5	19
Reconversion in progress	1	14.5	18.5
Reconversion retarded by shortages	0	0	11
Post-war plans for modernization	3	43	39.5
Post-war plans for expansion	5	71	33.5
Post-war plans for mod. & exp.	3	43	25.5
Mod. and/or exp. in progress	5	71	43
Mod. and/or exp. retarded by shortages	3	43	21.5

This group is very small due to the nature of the survey. It includes 4 plants producing furniture (one converted from wooden aircraft parts) and one each producing beds and mattresses, oilcloth and linoleum, and chinaware. Little reconversion was required in these plants and it was still in progress in only one plant which did not report any shortages and expected that it would be complete by the end of November 1946.

The number of plants that were modernizing was not much higher than the average for all industries, but the proportion that were expanding was very high, being exceeded only by the agricultural implements industry. While 2 plants were being retarded by shortages of equipment and one by material shortages, 4 of the 5 expanding plants expected to complete their programs this year. The other plant was unable to state how long the process

would take.

The expected increase in employment of 12.4 percent was the highest of any industry. This increase was shared among all of the expanding plants except one which was unable to state whether an increase would result. All of the expected increase will take place before the end of 1946. Moreover, these plants expected to increase their total employment by 10 percent between March 1 and May 1. In so far as this small group of plants is typical of the industry as a whole, therefore, the survey indicates that this industry is undertaking a very satisfactory volume of post-war expansion which should be of considerable help in meeting the urgent demand for its products.

(b) RADIO AND COMMUNICATIONS

Table 12 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN RADIO AND COMMUNICATIONS

	Radio and Communications		All Industries
	Plants Reporting	Percent Reporting	Percent Reporting
Total	19	100	100
Reconversion not required	7	37	62.5
Reconversion complete	5	26	19
Reconversion in progress	7	37	18.5
Reconversion retarded by shortages	5	26	11
Post-war plans for modernization	8	42	39.5
Post-war plans for expansion	12	63	33.5
Post-war plans for mod. & exp.	8	42	25.5
Mod. and/or exp. in progress	11	58	43
Mod. and/or exp. retarded by shortages	7	37	21.5

This group includes plants producing broadcasting and communications equipment and phonographs but the bulk of the output of the plants covered consists of domestic radios and parts. Since the coverage is quite high and includes all of the larger plants, it provides a good sample of the industry as a whole.

The number of plants in which reconversion was necessary was 70 percent higher than the overall average and less progress had been made towards its completion than in most industries. The main reason for this seemed to be the high incidence of shortages. The plants with reconversion still in progress employed six times as many workers as those in which it was complete. Three plants were being retarded by delays in obtaining various equipment, two by difficulties in securing necessary materials and parts and one by a shortage of skilled technicians. In spite of these difficulties,

however, 4 of the 7 plants expected to complete their reconversion by the end of June and all of them expected it to be complete by the end of the year.

The number of plants with plans for modernization was no higher than the overall average, but the proportion that were planning to expand was very high. The radio industry ranked third highest in this respect, being exceeded only by the agricultural implements and household furnishings industries. All of the plants that were modernizing were also expanding. As in the case of reconversion the incidence of shortages was high. Five plants were being delayed by slow delivery of specialized machinery and equipment, four by the shortage of building materials and one by a shortage of building tradesmen. Nevertheless, most of the expansion programs were of a relatively short range nature. One plant had completed its program by purchasing an additional building and 8 of the other 11 expected that expansion would be complete by the end of 1946.

The expected increase in employment resulting from expansion was 6 percent, placing the radio industry fourth highest in this respect. This increase was very widely distributed with only two of the expanding plants reporting no resulting increase in employment. Five-eighths of the total increase will be realized by the end of 1946. Thus the survey indicates that a significant amount of post-war expansion is taking place in this industry.

(c) AUTOMOBILES

Table 13 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN AUTOMOBILES

	Automobiles		All Industries
	Plants Reporting	Percent Reporting	Percent Reporting
Total	37	100	100
Reconversion not required	9	24.5	62.5
Reconversion complete	12	32.5	19
Reconversion in progress	16	43	18.5
Reconversion retarded by shortages	7	19	11
Post-war plans for modernization	17	46	39.5
Post-war plans for expansion	13	35	33.5
Post-war plans for mod. & exp.	9	24.5	25.5
Mod. and/or exp. in progress	17	46	43
Mod. and/or exp. retarded by shortages	5	15.5	21.5

This group includes all of the plants in which the major portion of the output consists of automobile parts (including tires) as well as the

[illegible] plants [illegible] increase [illegible] by the [illegible]

[illegible]

[illegible] should be [illegible]

[illegible] 1941. The radio industry ranked third highest in all respects, being exceeded only by the agricultural implements and household furnishings industries. All of the plants that were maintaining [illegible] operating [illegible] the incidence of shortages was high. [illegible] reported delays [illegible] deliveries of [illegible] machinery and [illegible] a shortage of [illegible] materials [illegible] by a shortage of [illegible] tools [illegible]. Nevertheless, most of the expansion [illegible] was [illegible] already under construction. One plant had [illegible] for [illegible] by [illegible] an additional building [illegible] delayed by [illegible].

The [illegible] expansion [illegible] of [illegible] plants [illegible] radio industry [illegible]. This [illegible] the [illegible] plants [illegible] increase in employment. [illegible] will be [illegible] by the end of 1946. [illegible] taking place in this industry.

[illegible]

TABLE [illegible] [illegible]

[illegible]				
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	37	100	100	
[illegible]	[illegible]	[illegible]	[illegible]	

[illegible] of the plants in [illegible]

[illegible]

main assembly plants. Since the coverage is complete for the assembly plants (except for new entrants) and very high for the plants producing parts, the survey provides a fairly complete picture of the progress of reconversion and post-war expansion in this industry.

Three-quarters of the plants covered required reconversion, the highest proportion in any industry. Considerable progress had been made towards the completion of reconversion by the end of February, but much still remained to be done mainly because of the delays caused by the steel strike in the United States and labour difficulties both here and in the United States. In spite of these serious setbacks, however, reconversion will be substantially completed within a very short period. The plants with reconversion still in progress employed nearly twice as many workers as those in which it was complete. One-quarter of the plants engaged on reconversion expected to complete it by the end of April and four-fifths expected to do so by the end of June. The other fifth required only slightly longer periods. However, the strikes which have occurred since the taking of the survey have probably prevented the realization in full of this time table. In the spring of 1946 the number affected by shortages was rather low. Five plants were being retarded by slow delivery of equipment, 2 by a shortage of skilled labour and 1 by a shortage of sheet steel, but these difficulties did not appear to be of a serious character.

While the incidence of modernization was somewhat higher than the average for all industries, the incidence of expansion was only slightly higher because of the relatively large number that were modernizing only. Practically all of the programs were of a very short range nature. Two plants had already completed modernization and two had completed both modernization and expansion. Almost two-thirds of the other 17 plants expected to complete their programs by the end of July and only one plant reported a program extending into 1947. The number of plants affected by shortages was low. Four plants were being delayed by slow delivery of equipment and one by a shortage of materials, but these difficulties did not appear to be having any serious retarding effect.

The expected increase in employment of 3.8 percent was not much higher than the overall average, but over 90 percent of it will be realized by the end of 1946. The increase was concentrated within a relatively small number of plants. Only 7 of the expanding firms reported an increase

in employment and 2 of these accounted for three-quarters of the total increase. However, 3 of the plants with no plans for modernization or expansion expected to increase their employment by a total of 750 over their May 1 forecasts. It must be kept in mind that the survey does not cover a type of expansion which is playing an important role in this industry at the present time, i.e., the entry of new firms. The Studebaker Corporation has purchased a large war-plant in Hamilton and expects to be ready to start production in a few months. Reo Motors Limited has purchased one of the buildings of Research Enterprises Limited. The Fruehauf Trailer Company of Canada has purchased the large Massey-Harris aircraft plant in Weston and has started production of truck trailers. These and similar developments should be taken into account when considering post-war expansion in the automobile industry.

(d) DOMESTIC APPLIANCES

Table 14 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN DOMESTIC APPLIANCES

	Domestic Appliances		All Industries
	Plants Reporting	Percent Reporting	Percent Reporting
Total	18	100	100
Reconversion not required	7	39	62.5
Reconversion complete	6	33	19
Reconversion in progress	5	28	18.5
Reconversion retarded by shortages	3	16.5	11
Post-war plans for modernization	8	44.5	39.5
Post-war plans for expansion	8	44.5	33.5
Post-war plans for mod. & exp.	4	22	25.5
Mod. and/or exp. in progress	10	55.5	43
Mod. and/or exp. retarded by shortages	5	28	21.5

This group covers plants which are mainly engaged in producing such goods as domestic electrical appliances, refrigerators and stoves, washing machines, vacuum cleaners, sewing machines, household utensils, bicycles and baby carriages. It does not include radios or automobiles which are treated separately. The sample is reasonably representative except for the unavoidable exclusion of a number of plants in which these products form a minor portion of the output.

The number of plants requiring reconversion was 60 percent higher than the overall average, but substantial progress had been made toward the completion of reconversion activities. All of the 5 plants with reconversion

still in progress expected that it would be complete by the end of August with the exception of one plant which was unable to state how long it would require. The number of plants that were being retarded by shortages was no higher than the overall average with 2 plants reporting delays in obtaining machinery and one a shortage of materials.

Two-thirds of the plants had post-war plans for modernization or expansion compared with the average of a little under one-half for all industries. The proportion that were both modernizing and expanding, however, was a little below the overall average because the number that were modernizing or expanding only was higher than in most industries. Most of the programs were of a quite short range nature. Modernization had already been completed in 2 plants. Half of the other 10 plants expected to complete their programs by the end of June and four-fifths expected to do so by the end of the year. Only one plant reported a program extending beyond 1947. The number affected by shortages was no higher than the overall average. Three plants were being retarded by difficulties in securing equipment, two by the shortage of building materials and one by a shortage of labour.

The employment creating effects of this expansion were quite small in relation to the volume of activity being undertaken, the expected increase of 3.8 percent being not much higher than the average for all industries. Less than half of the expanding plants reported a resulting increase in employment and one plant accounted for over half of the total increase. Since this plant did not expect to complete its program until 1947, the larger part of the expected increase will not be realized until next year.

3. PRODUCERS' GOODS

(a) PRIMARY IRON AND STEEL

Table 15 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN PRIMARY IRON AND STEEL

	Primary Iron and Steel		All Industries
	Plants Reporting	Percent Reporting	Percent Reporting
Total	20	100	100
Reconversion not required	20	100	62.5
Reconversion complete	0	0	19
Reconversion in progress	0	0	18.5
Reconversion retarded by shortages	0	0	11
Post-war plans for modernization	8	40	39.5
Post-war plans for expansion	4	20	33.5
Post-war plans for mod. & exp.	4	20	25.5
Mod. and/or exp. in progress	8	40	43
Mod. and/or exp. retarded by shortages	3	15	21.5

The coverage in this industry is very high and includes all of the important plants so that it provides a satisfactory sample of the industry as a whole. No significant amount of physical reconversion was required, the main problem being rather one of adjustment to peacetime markets.

The number of plants that were modernizing their facilities was as high as the overall average because of the widespread need for the replacement of equipment which was worn out during the war, but only a small amount of real expansion activity was being undertaken due to the large expansion which took place during the war. The incidence of shortages was quite low. Two plants were being retarded by a shortage of building supplies and building labour and one by slow delivery of equipment. The average time required for the completion of modernization and expansion was somewhat shorter than the average for all industries. Of the 8 plants with programs in progress, 4 expected to complete them by the end of 1946, 2 during the spring of 1947 and the other 2 by the fall of 1947.

No increase in employment was expected to result from the completion of post-war expansion activities. However, current employment was expected to increase by 350 between March 1, and May 1 and there is every indication that the present high level of employment in this industry will be well maintained for some time to come.

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(b) STRUCTURAL AND SHEET STEEL

Table 16 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN STRUCTURAL AND SHEET STEEL

	Structural and Sheet Steel		All Industries
	Plants Reporting	Percent Reporting	Percent Reporting
Total	13	100	100
Reconversion not required	8	61.5	62.5
Reconversion complete	4	31	19
Reconversion in progress	1	7.5	18.5
Reconversion retarded by shortages	0	0	11
Post-war plans for modernization	6	46	39.5
Post-war plans for expansion	6	46	33.5
Post-war plans for mod. & exp.	5	38.5	25.5
Mod. and/or exp. in progress	6	46	43
Mod. and/or exp. retarded by shortages	2	15.5	21.5

This group consists mainly of plants producing structural steel for building and other construction, but it also includes a few plants producing sheet metal products. The coverage is fairly high and it is quite representative. The number of plants requiring reconversion was a little higher than the overall average, but nearly all of them had already completed it by the end of February. Reconversion was still in progress in one plant, but it was not being retarded by any shortages and expected to complete its reconversion by the end of May.

The heavy demand for structural steel for building construction was reflected in the fact that the incidence of both modernization and expansion was quite high. Only 2 plants were affected by shortages, both being delayed by slow delivery of equipment and the shortage of building materials. The average time required for the completion of modernization and expansion was about equal to the overall average. Of the 6 plants with programs in progress, 3 expected to complete them by the end of 1946, one had a five year program and the other two were unable to state how long they would require.

The expected increase in employment of 3.2 percent was a little lower than the average for all industries, but it was quite widely distributed among the expanding plants. Only 40 percent of the total increase will be realized by the end of 1946.

(c) CASTINGS AND FORGINGS

Table 17 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN CASTINGS AND FORGINGS

	Castings and Forgings		All Industries
	Plants Reporting	Percent Reporting	Percent Reporting
Total	26	100	100
Reconversion not required	10	38.5	62.5
Reconversion complete	12	46	19
Reconversion in progress	4	15.5	18.5
Reconversion retarded by shortages	2	7.5	11
Post-war plans for modernization	14	54	39.5
Post war plans for expansion	8	30.5	33.5
Post-war plans for mod. & exp.	8	30.5	25.5
Mod. and/or exp. in progress	12	46	43
Mod. and/or exp. retarded by shortages	5	19	21.5

This group covers plants engaged in general foundry work. The coverage is fairly high and it is quite representative of the industry as a whole. The number of plants requiring reconversion was very high, but three-quarters of them had already completed it by the end of February so that only a relatively small amount of reconversion remained to be accomplished. Of the four plants with reconversion still in progress, two were being retarded by shortages of labour, but no other shortages were reported. Two of them expected to complete their reconversion activities by the end of June and the other two by the end of September.

The number of plants that were modernizing was quite high, but the number that were expanding was a little lower than the overall average. All of the plants that were expanding were also modernizing. The incidence of shortages was somewhat lower than the overall average. Two plants were being delayed by a shortage of moulders and heavy labourers, one by slow delivery of machinery and one by difficulties in securing an adequate supply of foundry coke. The average time required for the completion of modernization and expansion was considerably shorter than the overall average. Two plants had already completed their programs. Of the 12 plants with programs in progress, 4 expected to complete them by the end of July, 8 by the end of 1946 and 9 by the spring of 1947. The other 3 plants were unable to state how long they would require.

The expected increase in employment of 3 percent was somewhat lower than the overall average. All but one of the plants that reported an increase were located in southwestern Ontario and the total increase was distributed

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quite widely among these plants. The relatively short-range nature of most of the programs was reflected in the fact that two-thirds of the expected increase will be realized by the end of the year.

(d) MACHINERY AND PARTS

Table 18 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN MACHINERY AND PARTS

	Machinery and Parts		All Industries
	Plants Reporting	Percent Reporting	Percent Reporting
Total	41	100	100
Reconversion not required	22	53.5	62.5
Reconversion complete	6	14.5	19
Reconversion in progress	13	32	18.5
Reconversion retarded by shortages	11	27	11
Post-war plans for modernization	23	56	39.5
Post-war plans for expansion	15	36.5	33.5
Post-war plans for mod. & exp.	14	34	25.5
Mod. and/or exp. in progress	22	53.5	43
Mod. and/or exp. retarded by shortages	7	17	21.5

This group includes plants producing heavy machinery and other industrial equipment. The coverage is quite high and provides a representative sample of the industry as a whole. Reconversion was necessary in a fairly high proportion of these plants and relatively slow progress had been made towards its completion. The 13 plants with reconversion still in progress employed 65 percent more workers than the 6 plants in which it had been completed. The incidence of shortages was higher than in any other industry except clothing. Shortages of equipment and tools were retarding 7 plants while 3 were being delayed by lack of materials and one by a shortage of skilled labour. The average time required for the completion of reconversion was somewhat longer than the overall average. While 7 plants expected to complete their reconversion by the end of August, only one of the other 6 plants expected to do so by the end of 1946. Two required a longer period and the remaining 3 plants were unable to state how long they would require.

The incidence of modernization was high with this industry ranking fifth highest in this respect, but the incidence of expansion was only a little higher than the overall average. In contrast to the case of reconversion, the number of plants affected by shortages was a little lower than the overall average. Slow delivery of equipment was retarding the programs of 3 plants while 3 were being delayed by the shortage of building materials and 2 by a shortage of skilled labour. The average time required for the completion of

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modernization and expansion was a little shorter than the overall average. Two plants had already completed their programs and of the 22 plants with programs in progress, 27 percent expected to complete them by the end of August, 59 percent by the end of 1946 and 73 percent by the end of 1947. The other 6 plants were unable to state how long they would require.

This expansion activity was expected to result in an increase in employment of 3.6 percent approximating the overall average. The increase was quite widely distributed among the expanding plants none of which accounted for more than 15 percent of the total. About two thirds of the total increase was expected to take place by the end of 1946.

(e) BOILERS, TANKS, ENGINES AND HEATING EQUIPMENT

Table 19 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN BOILERS, TANKS, ENGINES AND HEATING EQUIPMENT

	Boilers, Tanks etc.		All Industries
	Plants Reporting	Percent Reporting	Percent Reporting
Total	14	100	100
Reconversion not required	5	36	62.5
Reconversion complete	4	28	19
Reconversion in progress	5	36	18.5
Reconversion retarded by shortages	2	14.5	11
Post-war plans for modernization	6	43	39.5
Post-war plans for expansion	6	43	33.5
Post-war plans for mod. & exp.	5	36	25.5
Mod. and/or exp. in progress	6	43	43
Mod. and/or exp. retarded by shortages	2	14.5	21.5

The coverage in this industry is about as high as the overall average and it is quite representative. Reconversion was necessary in nearly two-thirds of these plants which was a higher proportion than in any other industry except automobiles and heavy electrical apparatus. While only 4 of the 9 plants requiring reconversion had completed it by the end of February, there were at that time no serious obstacles to its early completion in the other 5 plants. Only one plant was being delayed by slow delivery of equipment and one by the shortage of steel, but no other shortages were reported. As mentioned previously, however, the strikes that have occurred since March have probably resulted in further delays. The average time required for the completion of reconversion was only 4 months and none of the firms expected that their reconversion activities would extend beyond September.

The number of plants that were modernizing was only a little higher than the overall average but the number that were expanding was considerably

higher. All but one of the expanding plants were located in Montreal or Toronto. As in the case of reconversion, the incidence of shortages was quite low. Two plants were being retarded by difficulties in securing new machinery, but no other shortages were reported. Most of the programs were of a fairly short range nature. Of the 6 plants with programs in progress, 3 expected to complete them by the end of 1946 and 5 by the middle of 1947. The other plant was unable to state how long it would require.

The employment creating effects of post-war expansion were high. The expected increase of 5.8 percent was 70 percent higher than the overall average and was exceeded by only four other industries. All of the expanding plants reported a resulting increase in employment although two of them accounted for over half of the total. A little over three-fifths of the increase is expected to be realized by the end of 1946.

(f) SMALL TOOLS AND BUILDERS' HARDWARE

Table 20 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN SMALL TOOLS AND BUILDERS' HARDWARE

	Small Tools etc.		All Industries
	Number Reporting	Percent Reporting	Percent Reporting
Total	16	100	100
Reconversion not required	9	56	62.5
Reconversion complete	4	25	19
Reconversion in progress	3	19	18.5
Reconversion retarded by shortages	2	12.5	11
Post-war plans for modernization	3	19	39.5
Post-war plans for expansion	4	25	33.5
Post-war plans for mod. & exp.	2	12.5	25.5
Mod. and/or exp. in progress	4	25	43
Mod. and/or exp. retarded by shortages	0	0	21.5

This group consists mainly of plants producing small tools such as saws, axes, wrenches, files and drills, but it also includes a few plants producing builders' hardware. The coverage is not high but it is fairly representative.

The number of plants requiring reconversion was a little higher than the overall average, but a little better than average progress had been made toward its completion. Of the 3 plants with reconversion still in progress, 2 were being retarded by shortages of skilled labour and one of these was also being retarded by shortages of materials. The plant which did not report any shortages expected to complete its reconversion by the end of May, but the other two did not expect to do so until the end of the year.

The incidence of both modernization and expansion was quite low, and all but one of the expansion programs were relatively minor in character. None of the 4 plants with programs in progress were being delayed by shortages. Three of them expected to complete their programs by the end of September and the other plant did not state how long it would require.

The expected increase in employment was quite large, but 80 percent of it was accounted for by one plant and in this case it was not clear how much of the increase reported could be attributed to expansion and how much was contingent upon an improved supply of sheet steel. Apart from this plant no very great increase in employment was expected to result from post-war expansion.

(g) PLUMBING SUPPLIES

Table 21 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN PLUMBING SUPPLIES

	Plumbing Supplies		All Industries
	Number Reporting	Percent Reporting	Percent Reporting
Total	9	100	100
Reconversion not required	4	44.5	62.5
Reconversion complete	3	33.5	19
Reconversion in progress	2	22	18.5
Reconversion retarded by shortages	2	22	11
Post-war plans for modernization	7	78	39.5
Post-war plans for expansion	5	55.5	33.5
Post-war plans for mod. & exp.	5	55.5	25.5
Mod. and/or exp. in progress	4	44.5	43
Mod. and/or exp. retarded by shortages	1	11	21.5

The coverage in this industry is fairly high and it is quite representative. The number of plants requiring reconversion was 50 percent higher than the overall average, but fairly good progress had been made toward its completion. Of the 2 plants with reconversion still in progress, one was being retarded by shortages of equipment and the other by difficulties in disposing of materials which had accumulated due to termination of war contracts. One of them expected to complete its reconversion by the end of the year and the other did not state how long it would require.

The incidence of modernization was higher than in any other industry and the incidence of expansion was the fourth highest. All of the plants that were expanding were also modernizing. Only one plant was experiencing any shortages. It was being retarded by difficulties in securing necessary

equipment and by a shortage of skilled moulders. Modernization and expansion had already been completed in 3 plants by the end of February. One plant expected to complete its program by the end of the year and one by the spring of 1947. The other two were unable to state how long they would require.

The expected increase in employment of 3.1 percent was somewhat lower than the overall average, but this was probably due to the fact that a relatively high proportion of the plants that were expanding had already completed their programs. All but one of the plants with expansion programs in progress reported a resulting increase in employment, although only 25 percent of the total increase was expected to take place by the end of 1946.

(h) WIRE AND WIRE PRODUCTS

Table 22 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN WIRE AND WIRE PRODUCTS

	Wire and Wire Products		All Industries
	Number Reporting	Percent Reporting	Percent Reporting
Total	6	100	100
Reconversion not required	5	83.5	62.5
Reconversion complete	1	16.5	19
Reconversion in progress	0	0	18.5
Reconversion retarded by shortages	0	0	11
Post-war plans for modernization	4	66.5	39.5
Post-war plans for expansion	2	33.5	33.5
Post-war plans for mod. & exp.	2	33.5	25.5
Mod. and/or exp. in progress	4	66.5	43
Mod. and/or exp. retarded by shortages	4	66.5	21.5

This group includes plants producing wire (chiefly steel wire) and such wire products as fencing, wire cloth, coils and springs. The coverage is fairly high and provides a good sample of the industry as a whole.

Only a small amount of reconversion was necessary in this industry and the one plant in which it was required had already completed it by the end of February. The number of plants that were modernizing was high, but the number that were expanding was no higher than the overall average. All of the 4 plants with modernization programs in progress were being retarded by slow delivery of equipment. The 2 plants that were expanding were also being delayed by the shortage of building materials. One plant expected to complete its program by the end of July and two by the middle of 1947. The other plant did not state how long it would require.

The employment creating effects of post-war expansion were not very great, the expected increase of 1.2 percent being only about one-third as

high as the overall average. All of the increase was accounted for by one plant which did not expect that it would take place until 1947.

(i) ELECTRICAL APPARATUS AND INSTRUMENTS

Table 23 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN ELECTRICAL APPARATUS AND INSTRUMENTS

	Electrical Apparatus and Instruments		All Industries
	Plants Reporting	Percent Reporting	Percent Reporting
Total	29	100	100
Reconversion not required	9	31	62.5
Reconversion complete	8	27.5	19
Reconversion in progress	12	41	18.5
Reconversion retarded by shortages	9	31	11
Post-war plans for modernization	12	41	39.5
Post-war plans for expansion	13	45	33.5
Post-war plans for mod. & exp.	9	31	25.5
Mod. and/or exp. in progress	14	48	43
Mod. and/or exp. retarded by shortages	11	38	21.5

This group mainly includes plants which produce heavy electrical equipment for industrial purposes. The coverage is quite high and includes nearly all of the larger plants. Seventy percent of these plants required reconversion which was a higher proportion than in any other industry except the automobile industry. While a good deal of progress had been made by the end of February, the major portion of reconversion still remained to be completed. The plants with reconversion still in progress employed four times as many workers as those in which it had been completed. The chief reason seemed to be the fact that the incidence of shortages was very high. Of the 12 plants with reconversion still in progress, 7 were being delayed by difficulties in securing delivery of equipment (chiefly machine tools), 3 by shortages of materials and one by a shortage of labour. These difficulties were reflected in the relatively long period that was required for the completion of reconversion. While 6 plants expected to complete their reconversion by the end of August, 4 of the others did not expect that it would be complete until the end of the year and one until July, 1947. These latter 5 plants were the largest plants in the sample.

While the number of plants that were modernizing was no higher than the overall average, the number that were expanding was considerably higher. Nearly all of the larger plants were expanding. As in the case of reconversion, the incidence of shortages was high. Of the 14 plants with programs in progress, 7 were being impeded by show delivery of equipment (chiefly

machine tools), 4 by the shortage of building materials and 2 by a shortage of building tradesmen. However, these shortages did not seem to be having as serious a retarding effect as in the case of reconversion. Two plants had already completed their programs and 60 percent of those with programs in progress expected to complete them by the end of 1946 which was a little higher than the average for all industries. All of the others expected to be able to complete their programs during 1947. Most of the larger plants were in this latter group.

The expected increase in employment of 4.6 percent was 35 percent higher than the overall average and placed the electrical apparatus industry sixth highest in this respect. The increase was quite widely distributed among the expanding plants although 60 percent of the total was accounted for by 3 of the larger plants. Since these 3 plants all had longer range programs which would be completed during 1947, only 40 percent of the expected increase will be realized by the end of this year.

(j) AGRICULTURAL MACHINERY AND EQUIPMENT

Table 24 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN AGRICULTURAL MACHINERY AND EQUIPMENT

	Agricultural Machinery and Equipment		All Industries
	Plants Reporting	Percent Reporting	Percent Reporting
Total	9	100	100
Reconversion not required	4	44.5	62.5
Reconversion complete	2	22	19
Reconversion in progress	3	33.5	18.5
Reconversion retarded by shortages	3	33.5	11
Post-war plans for modernization	6	66.5	39.5
Post-war plans for expansion	7	77.5	33.5
Post-war plans for mod. & exp.	6	66.5	25.5
Mod. and/or exp. in progress	7	77.5	43
Mod. and/or exp. retarded by shortages	5	55.5	21.5

The coverage in this industry is almost complete and includes all of the larger plants. The number of plants requiring reconversion was 50 percent higher than the overall average. Reconversion had been completed in one large plant and one medium sized plant and was still in progress in two large plants and one small plant. Both of these large plants were being retarded by slow delivery of equipment and one by the shortage of building materials. The small plant expected to complete reconversion of its facilities by the end of June, but the two large plants thought that it would take them until the end of the year to do so.

The incidence of modernization was higher than in any other industry except plumbing supplies and the incidence of expansion was the highest of any industry. All of the larger plants were both modernizing and expanding, the main emphasis being on the expansion of foundry facilities. The number that were being retarded by shortages was high, being exceeded only by the clothing industry, but the difficulties faced did not appear to be as serious as those in some of the other industries in which the proportion affected was somewhat lower. Three plants were being delayed by slow delivery of equipment, two by the shortage of building materials and one by a shortage of skilled moulders. Three plants expected to complete their programs by the end of 1946, and one during 1947. Another plant had a five year program. The remaining two plants were unable to state when they expected to complete their programs.

The employment creating effects of this expansion were rather low in relation to the volume of activity that is being undertaken. The expected increase of 3 percent was somewhat lower than the average for all industries. Only 3 plants reported that their programs would result in an increase in employment and one plant accounted for 75 percent of the total. Since this plant does not expect to complete its program until the second half of 1947, only a small proportion of the increase is likely to take place during 1946.

(k) RAILWAY ROLLING STOCK

Table 25 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN RAILWAY ROLLING STOCK

	Railway Rolling Stock		All Industries
	Plants Reporting	Percent Reporting	Percent Reporting
Total	19	100	100
Reconversion not required	11	58	62.5
Reconversion complete	7	37	19.
Reconversion in progress	1	5	18.5
Reconversion retarded by shortages	0	0	11
Post-war plans for modernization	6	31.5	39.5
Post-war plans for expansion	3	16	33.5
Post-war plans for mod. & exp.	3	16	25.5
Mod. and/or exp. in progress	4	21.5	43.5
Mod. and/or exp. retarded by shortages	1	5	21.5

The coverage in this industry is fairly high and includes nearly all of the larger plants so that it provides a representative sample. The number of plants in which reconversion was necessary was a little higher than the overall average, but it had already been completed in all but one plant which did not report any retarding factors and expected that the process would

be complete before the end of the year.

The incidence of modernization was 20 percent lower than the overall average and the industry was not undertaking any important amount of expansion. One plant was being retarded by a shortage of materials but no other shortages were reported. Two plants had already completed their programs and all but one of the others expected that they would be able to do so by the end of the year.

Since post-war expansion is only being undertaken to a limited extent in this industry, it will not lead to any significant increase in employment. An increase only 1.2 percent or about one-third of the overall average was indicated. It was expected to take place mainly in 2 plants which had short range programs, consequently the increase should take place before the end of 1946. In spite of the limited amount of expansion that is being undertaken, however, current employment is showing an upward trend. These plants expected to increase their total employment by 500 between March 1 and May 1, 1946. One of the plants which was not expanding its capacity expected nevertheless to increase its employment by a further 125 during June. The explanation is that sufficient capacity has been built up in the past few years to cope with the production programs contemplated for the immediate future. In view of the backlog of deferred demand which has accumulated during the war and the considerable volume of orders which have been received from European countries, the present high level of employment is likely to be well sustained for some time to come.

(1) SHIPBUILDING

Table 26 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN SHIPBUILDING

	Shipbuilding		All Industries
	Plants Reporting	Percent Reporting	Percent Reporting
Total	29	100	100
Reconversion not required	25	86	62.5
Reconversion complete	1	3.5	19
Reconversion in progress	3	10.5	18.5
Reconversion retarded by shortages	2	7	11
Post-war plans for modernization	6	21	39.5
Post-war plans for expansion	3	10.5	33.5
Post-war plans for mod. & exp.	2	7	25.5
Mod. and/or exp. in progress	6	21	43
Mod. and/or exp. retarded by shortages	3	10.5	21.5

The coverage in this industry is high and includes all of the important shipyards except those which have ceased operations. Little reconversion was required in this industry. By the spring of 1946 adaptation of the yards to peacetime purposes was in progress in only 3 establishments. One of these expected to complete its reconversion activities within the next few months while the other two did not expect to do so until toward the end of the year. The plans of one yard were being delayed by shortages of tools and building materials required for plant alterations, but otherwise no shortages were impeding the completion of reconversion at the time the survey was made. As indicated on several other occasions, production hold-ups in supplier industries due to industrial strife may have had some retarding effect on this time schedule.

Since this industry expanded so greatly during the war, the number of yards that were undertaking post-war programs of modernization or expansion was small. Most of the programs were of a relatively minor nature and were designed mainly to facilitate the adaptation of productive facilities to the construction of ships for peace-time purposes. The incidence of shortages was no higher than the overall average. Three yards were being retarded by delays in securing machinery and equipment and one by the shortage of building materials. All but one of the 6 establishments with programs in progress expected to complete them by the end of 1946.

No increase in employment was expected to result from these expansion programs. One of the yards with a modernization program in progress expected to increase its employment by 200, but this was due to the fact that

it was intending to convert part of its facilities to the fabrication of sheet metal products. Total employment was expected to decline by 1,400 between March 1 and May 1, 1946 and this decline will continue as remaining war contracts are completed. On the other hand, a comparatively large volume of repair work is ahead of the industry and a number of yards have orders on hand for the construction of new ships for commercial and other uses. These factors tend to counteract the decline in employment resulting from the completion of ships built on war account. While there is no long term assurance for the future of the shipbuilding industry in Canada, it appears that employment will probably be maintained at substantially the present level for some time to come.

(m) AIRCRAFT

Table 27 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN AIRCRAFT

	Aircraft		All Industries
	Plants Reporting	Percent Reporting	Percent Reporting
Total	16	100	100
Reconversion not required	10	62.5	62.5
Reconversion complete	4	25	19
Reconversion in progress	2	12.5	18.5
Reconversion retarded by shortages	0	0	11
Post-war plans for modernization	1	6	39.5
Post-war plans for expansion	1	6	33.5
Post-war plans for mod. & exp.	1	6	25.5
Mod. and/or exp. in progress	1	6	43
Mod. and/or exp. retarded by shortages	0	0	21.5

This group does not include plants which have ceased operation or have been converted to other types of production. Otherwise the coverage is practically complete. The number of plants requiring reconversion was no higher than the overall average and the major portion of reconversion had already been completed by the end of February. Of the two plants with reconversion still in progress, one expected that it would be complete by the end of April and the other by the end of June. Neither of them was being retarded by any shortages.

Actually conversion to other types of products has been more important in this industry than reconversion to civilian aircraft production. In particular a number of plants that produced parts for wooden aircraft during the war are being converted to the production of prefabricated houses, furniture and other wood products. Other aircraft plants are being converted

to the production of such varied products as truck trailers, buses, paperboard containers and leather goods. The same process will probably take place in some of the plants which have been included in this group but whose activities at the time the survey was made were limited to the completion of war contracts.

One plant was extending its facilities for the overhaul of aircraft, but no other post-war programs of modernization or expansion were being undertaken. This plant was not being retarded by any shortages and expected to complete its program by the end of September, 1946. No increase in employment will result from its expansion activities. On the other hand, the reporting plants expected that their current employment would increase by a total of 1,000 between March 1 and May 1. One plant expected to increase its employment by a further 800 over its May 1 forecast and another by 100. Thus, the survey indicates that the decline in employment in this industry resulting from the termination of war production has come to an end and that the volume of peacetime production together with repair work will be sufficient not only to maintain employment at the present level but also to result in a gradual increase during the remainder of 1946.

(n) GUNS AND MUNITIONS

This group includes the plants that have been taken over by Canadian Arsenals Limited and the small number of war plants which are still engaged in dismantling and clearance operations. Reconversion is in progress in several of the plants of Canadian Arsenals Limited in order to make them better adapted to peacetime operations. This activity is not being retarded by any shortages and will be completed within the next few months. No modernization or expansion is being undertaken. Within a short period, employment in this industry will be limited to the small amount of continuing employment which will be provided by the plants of Canadian Arsenals Limited. Most of the other plants in this group are expected to be converted to other types of production. A number of them have already been sold to new owners.

4. BASIC MATERIALS

(a) BASE METALS

Table 28 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN BASE METALS

	Base Metals		All Industries
	Plants Reporting	Percent Reporting	Percent Reporting
Total	29	100	100
Reconversion not required	23	79.5	62.5
Reconversion complete	2	7	19
Reconversion in progress	4	13.5	18.5
Reconversion retarded by shortages	2	7	11
Post-war plans for modernization	5	17	39.5
Post-war plans for expansion	6	20.5	33.5
Post-war plans for mod. & exp.	2	7	25.5
Mod. and/or exp. in progress	9	31	43
Mod. and/or exp. retarded by shortages	4	13.5	21.5

This group consists mainly of plants engaged in the smelting and refining of base metals, but it also includes 7 plants engaged in the fabrication of base metals. In a few cases it was not possible to separate mine and mill employment so that the total employment shown is somewhat greater than the number actually engaged in smelting, refining and basic fabrication. The coverage of smelting and refining plants is quite high with the important exception that there is no coverage of aluminum refining, but the coverage of plants engaged in base metal fabrication is rather low particularly in the case of aluminum fabrication.

Very little physical reconversion was required in the smelting and refining plants, but it was required in a majority of the fabricating plants. Only one-third of the plants requiring reconversion had completed it but the 4 plants with reconversion still in progress employed only 700 workers. Two of them were being retarded by shortages of skilled labour, but no other shortages were reported. One plant expected to complete its reconversion by the end of May and the other 3 expected to do so by the end of October.

The number of plants with post-war plans for modernization or expansion was low because of the large expansion which took place in this industry during the war. A few of the smelting and refining plants were undertaking modernization programs, but expansion was confined almost entirely to the fabricating plants among which its incidence was quite high. As in the case of reconversion, the number of plants affected by shortages was somewhat

lower than the overall average. Three plants were being delayed by slow delivery of machinery and the shortage of structural steel and one by difficulties in securing an adequate supply of electric power. Most of the programs were of a medium-range nature and while only 4 of the 9 plants with programs in progress expected to complete them by the end of 1946, all of the others expected to do so by the fall of 1947.

Current employment was expected to increase slightly between March 1 and May 1. This industry would be doing well if it could continue to maintain its employment at the present level for the next two years. The employment creating effects of post-war expansion were not very great, the expected increase of 1.4 percent being only about 40 percent as high as the overall average. Over 85 percent of the total increase was accounted for by the fabricating plants and since most of these had relatively short range programs, the major portion of the increase was expected to be realized by the end of 1946.

(b) CHEMICALS

Table 29 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN CHEMICALS

	Chemicals		All Industries
	Plants Reporting	Percent Reporting	Percent Reporting
Total	30	100	100
Reconversion not required	20	66.5	62.5
Reconversion complete	9	30	19
Reconversion in progress	1	3.5	18.5
Reconversion retarded by shortages	0	0	11
Post-war plans for modernization	10	33.5	39.5
Post-war plans for expansion	12	40	33.5
Post-war plans for mod. & exp.	7	23.5	25.5
Mod. and/or exp. in progress	14	46.5	43
Mod. and/or exp. retarded by shortages	4	13.5	21.5

The coverage in this industry is about as high as the overall average and it provides a reasonably representative sample of the industry as a whole. The number of plants requiring reconversion was a little lower than the overall average and 9 out of these 10 plants had already completed their reconversion activities by the end of February, 1946. The remaining plant was not being delayed by any shortages and expected to complete its reconversion by the end of April.

In spite of the large expension which took place in the chemical industry during the war, the industry is continuing to grow. The incidence

of modernization was somewhat lower than the overall average, but the incidence of expansion was considerably higher. Paint and varnish plants in particular were undertaking large expansion programs. The number of plants affected by shortages was low. Three plants were being retarded by difficulties in securing necessary equipment and 2 by the shortage of building materials. No shortages of labour were reported. Nearly all of the programs were of a relatively short-range nature. One plant had already completed its program and 10 of the other 14 expected to do so by the end of 1946. Two of the other 4 plants expected to complete their programs by March, 1947, one had a five year program and one was unable to state how long it would require.

The expected increase in employment of 2.7 percent was smaller than the overall average, but it was fairly substantial when allowance is made for the high ratio of capital per worker in the chemical industry. The increase was widely distributed among the expanding plants, but 85 percent of the total was accounted for by 3 plants. Two of these were paint and varnish plants which alone accounted for nearly two-thirds of the total increase. The short-range nature of the post-war expansion programs in this industry was reflected in the fact that over three-quarters of the increase was expected to take place by the end of 1946.

(c) OIL AND GASOLINE

Table 30 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN OIL AND GASOLINE

	Oil and Gasoline		All Industries
	Plants Reporting	Percent Reporting	Percent Reporting
Total	12	100	100
Reconversion not required	6	50	62.5
Reconversion complete	6	50	19
Reconversion in progress	0	0	18.5
Reconversion retarded by shortages	0	0	11
Post-war plans for modernization	3	25	39.5
Post-war plans for expansion	2	16.5	33.5
Post-war plans for mod. & exp.	2	16.5	25.5
Mod. and/or exp. in progress	3	25	43
Mod. and/or exp. retarded by shortages	0	0	21.5

The coverage in this industry is fairly high although it is confined in the plants operated by two large companies. Reconversion was necessary in a fairly high proportion of these plants, but it did not present any serious problems and all of the 6 plants requiring reconversion had completed

it by the end of February.

The two large companies which operate most of the reporting plants have plans for extensive programs of post-war expansion. While these programs affect only a few of the reporting plants, they involve heavy investments of capital and a considerable expansion in the industry's productive capacity. Both companies had long range programs extending over the next two or three years and neither of them were being retarded by any shortages.

The employment creating effects of this expansion, however, were small, the expected increase of 1.5 percent being about half as great as the average for all industries. All of the increase was accounted for by one plant and it was not expected to take place before 1947.

(d) RUBBER AND RUBBER GOODS

Table 31 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN RUBBER AND RUBBER GOODS

	Rubber and Rubber Goods		All Industries
	Plants Reporting	Percent Reporting	Percent Reporting
Total	9	100	100
Reconversion not required	7	77.5	62.5
Reconversion complete	0	0	19
Reconversion in progress	2	22.5	18.5
Reconversion retarded by shortages	0	0	11
Post-war plans for modernization	3	33.5	39.5
Post-war plans for expansion	3	33.5	33.5
Post-war plans for mod. & exp.	2	22.5	25.5
Mod. and/or exp. in progress	4	44.5	43
Mod. and/or exp. retarded by shortages	1	11	21.5

This group is quite small because rubber tires have been included under automobiles and rubber footwear under footwear. It includes all of the plants engaged in the production of synthetic rubber and a few plants producing such rubber goods as hose, belting and pharmaceutical supplies. No reconversion was necessary in the synthetic rubber plants but some adaptation work was necessary in the plants producing rubber goods. Although neither of the two plants requiring reconversion had completed it, there were no obstacles to its early completion. One expected that reconversion would be complete by the end of June and the other by the end of September, 1946.

The number of plants that were modernizing was somewhat lower than the overall average, but the number that were expanding was just as high. While it was chiefly the plants producing rubber goods that were expanding, a limited amount of expansion was also taking place in the synthetic rubber

plants. One plant was experiencing difficulties in securing special equipment, piping valves and electrical parts, but no other shortages were reported. The time required for the completion of modernization and expansion was comparatively short. Of the 4 plants with programs in progress, 3 expected to complete them by October and the other by March, 1947.

The expected increase in employment was just equal to the overall average of 3.4 percent. All but one of the plants with programs in progress reported a resulting increase in employment, but two-thirds of the total was accounted for by one large rubber goods plant. All of the increase was expected to take place before the end of the year.

(c) PULP AND PAPER

Table 32 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN PULP AND PAPER

	Pulp and Paper		All Industries
	Plants Reporting	Percent Reporting	Percent Reporting
Total	25	100	100
Reconversion not required	22	88	62.5
Reconversion complete	3	12	19
Reconversion in progress	0	0	18.5
Reconversion retarded by shortages	0	0	11
Post-war plans for modernization	14	56	39.5
Post-war plans for expansion	6	24	33.5
Post-war plans for mod. & exp.	5	20	25.5
Mod. and/or exp. in progress	15	60	43
Mod. and/or exp. retarded by shortages	10	40	21.5

The coverage in this industry is just equal to the overall average. It is much higher in Quebec than it is in Ontario, but otherwise the sample is reasonably representative of the industry as a whole. Three printing plants and two plants producing fibre board have also been included in this group. Only a minor volume of reconversion work was necessary in this industry. All of the 3 plants in which it was required had already completed it by the end of February, 1946.

The number of plants that were modernizing was high with the pulp and paper industry ranking sixth highest in this respect. The number that were expanding was relatively low. This was mainly due to the fact that the major portion of current expansion activity was not covered by the survey. For example 4 large new pulp and paper plants which are under construction in Northwestern Ontario were not included. In British Columbia, a $5.5 million

kraft paper plant is under construction at Port Alberni and the Westminster Paper Company is building a $1.5 million addition to its plant which will double its present capacity. When these important developments are taken into account, it is clear that this industry is undertaking a large amount of post-war expansion as well as modernization with expansion activity centred mainly in northwestern Ontario and British Columbia. The incidence of shortages which consisted almost entirely of equipment shortages was high, the pulp and paper industry ranking fourth highest in this respect. Of the 15 plants with programs in progress, 9 were being delayed by slow delivery of heavy machinery, 2 by material shortages and one by difficulties in securing additional factory space. No shortages of labour were reported. Most of the programs were of a long range character. Only 4 of the 15 plants expected to complete their programs by the end of 1946. Most of the others had programs extending over the next two to three years with several extending up to four years.

The employment creating effects of this expansion were quite small, the expected increase of 1.1 percent being only about one-third as great as the overall average. However, this is partly due to the high ratio of capital employed per worker in this industry. Moreover, it does not include any allowance for the considerable increase in employment which will result from the completion of the 4 new plants in northwestern Ontario and from the other developments in British Columbia which are not covered in the survey. The long range nature of most of the post-war expansion programs in this industry was reflected in the fact that only 30 percent of the increase is likely to be realized by the end of 1946.

(f) LUMBER AND PLYWOOD

Table 33 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN LUMBER AND PLYWOOD

	Lumber and Plywood		All Industries
	Plants Reporting	Percent Reporting	Percent Reporting
Total	14	100	100
Reconversion not required	10	71.5	62.5
Reconversion complete	4	28.5	19
Reconversion in progress	0	0	18.5
Reconversion retarded by shortages	0	0	11
Post-war plans for modernization	4	28.5	39.5
Post-war plans for expansion	5	35.5	33.5
Post-war plans for mod. & exp.	4	28.5	25.5
Mod. and/or exp. in progress	4	28.5	43
Mod. and/or exp. retarded by shortages	1	7	21.5

The coverage in this industry is low. It cannot be considered representative of the industry as a whole because it is heavily weighted with plywood plants and establishments located in British Columbia. It includes planing mills and plants producing sashes, frames, doors and wooden boxes as well as sawmills. Relatively little reconversion was necessary in the plants from which reports were received. The 4 plants in which it was required had all completed it by the end of February, 1946.

The incidence of modernization was considerably lower than the average for all industries, but the incidence of expansion was a little higher. All of the plants that were modernizing were also expanding. One plant was experiencing difficulties in securing delivery of plywood machinery, but no other shortages were being experienced at the time the survey was made. All of the expansion programs were of a short range character. One large plant had already completed its program. Two of the 4 plants with programs in progress expected to complete them by the end of June and the other 2 expected to do so by the end of 1946.

The employment creating effects of this expansion activity were greater than in most industries, the expected increase of 4.2 percent being somewhat higher than the overall average. All of the increase was accounted for by 2 plants both of which were located in Ontario. All of it is expected to be realized by the end of 1946. While the sample is not representative of the industry as a whole, it is typical of what is happening in most establishments. If the survey can be taken to be illustrative, it appears that this

industry is undertaking a considerable amount of expansion which will assist in meeting the urgent demand for its products.

(g) OTHER BASIC MATERIALS

Table 34 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN OTHER BASIC MATERIALS

	Other Basic Materials		All Industries
	Plants Reporting	Percent Reporting	Percent Reporting
Total	16	100	100
Reconversion not required	15	94	62.5
Reconversion complete	0	0	19
Reconversion in progress	1	6	18.5
Reconversion retarded by shortages	1	6	11
Post-war plans for modernization	5	31	39.5
Post-war plans for expansion	6	37.5	33.5
Post-war plans for mod. & exp.	4	25	25.5
Mod. and/or exp. in progress	7	43.5	43
Mod. and/or exp. retarded by shortages	2	12.5	21.5

This group is rather heterogeneous. It includes plants producing such varied products as abrasives (5), shipping containers (3), leather (2), coke (2), asbestos (1) and cement(1). The coverage is quite low except in the case of abrasives, but it is fairly representative. Practically no reconversion was necessary in these plants. Reconversion was still in progress in one tannery which was being retarded by delays in securing leather working machinery and by a shortage of skilled labour, but it expected to complete its reconversion by the end of October.

While the incidence of modernization was somewhat lower than the overall average, the incidence of expansion was a little higher. The expanding plants were quite widely distributed among the various groups except that neither of the plants producing coke was expanding. The number of plants affected by shortages was quite low. One plant was being retarded by slow delivery of machinery, one by the shortage of building materials and one by a shortage of skilled labour. The average time required for the completion of modernization and expansion was somewhat longer than the average for all industries. Only 3 of the 7 plants expected to complete their programs by the end of 1946. Two expected to do so during 1947 and one during 1948. The plans of the other plant were still in a preliminary stage.

The expected increase in employment of 3 percent was a little lower than the overall average. Nearly all of the increase was accounted for by one

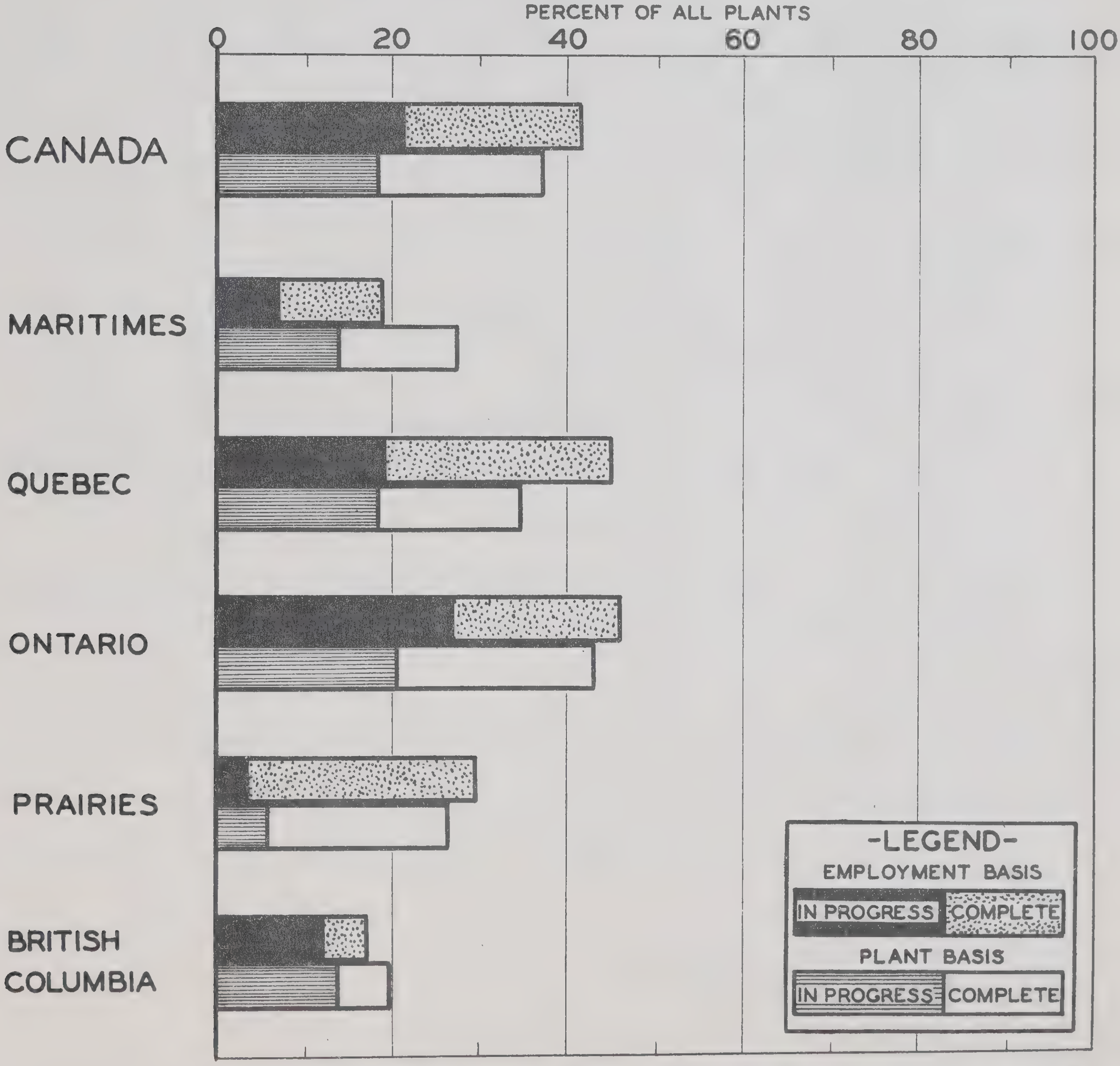
tannery and no significant increase in employment was expected among the other groups. The tannery thought that it could complete its program by October and that the resulting increase in employment would take place before the end of the year.

IV. PROGRESS OF RECONVERSION, MODERNIZATION AND EXPANSION BY GEOGRAPHICAL AREAS

A. SUMMARY: COMPARISON BY REGIONS

The relative extent and progress of reconversion in the five major regions is shown in Figure 4 both on the basis of the proportion of the plants requiring reconversion in each region and on the basis of the proportion of their employment to the total employment of the reporting plants for each region.

FIGURE 4
EXTENT AND PROGRESS OF RECONVERSION BY MAJOR REGIONS



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The extent of reconversion was somewhat greater on the employment basis than on the plant basis in Quebec and somewhat smaller in the Maritime provinces, but otherwise the differences were small. On both bases it was

highest in Ontario, about equal to the overall average in Quebec and relatively low in the other regions.

The greatest progress toward the completion of reconversion had been made in the Prairie provinces because of the relatively minor nature of the reconversion that was required in most of the plants in this region. In Quebec greater than average progress had been made on the employment basis and less than average progress on the plant basis whereas in Ontario the reverse was the case. However, this was due to the preponderant influence of a few large plants. If these plants are excluded, the ratios on an employment basis are similar to those on a plant basis. Average progress had been made in the Maritime provinces on a plant basis and considerably greater than average progress on the employment basis because it was chiefly the larger plants among those requiring reconversion that had completed it. Least progress had been made in British Columbia, but this was almost entirely due to the slow progress which had been made in the plants producing iron and steel products in Vancouver.

The relative time required for the completion of reconversion among the various regions was about proportional to the progress which had been made up to the end of February (see Table 35). Continued progress at a greater than average rate was expected in Ontario and the Prairie provinces whereas in Quebec the average time required was somewhat longer than the overall average. The percentages for the Maritime provinces and British Columbia must be interpreted with caution. The two plants in each of these regions which were unable to state how long they would require to complete their reconversion exercised an important influence on the ratios because of the small numbers of plants involved. These plants constituted less than five percent of the reporting plants in each case so that reconversion was expected to be substantially complete in both regions by the end of 1946.

Table 35 AVERAGE TIME REQUIRED FOR THE COMPLETION OF RECONVERSION BY MAJOR REGIONS

Region	Number of Plants Requiring Reconversion	Percent in Which Reconversion was Expected to be Complete by		
		End of Feb. 1946 (Actual)	End of Aug. 1946 (Expected)	End of 1946 (Expected)
Maritime Provinces	8	50.0	62.5	75.0
Quebec	63	47.6	70.0	87.3
Ontario	149	51.7	81.2	94.0
Prairie Provinces	9	77.8	88.9	88.9
British Columbia	10	30.0	50.0	80.0
Canada	239	50.6	76.6	90.8

The extent and progress of post-war modernization and expansion in each of the major regions is shown in Figures 5 and 6. As explained in the introduction to the industries section, the incidence of both modernization and expansion was considerably higher on the employment basis than it was on the plant basis because the proportion of the larger plants that were undertaking modernization or expansion programs was larger than the proportion of the smaller plants that were doing so. When allowance is made for this factor, the relative incidence of both modernization and expansion among the various regions was quite similar on both bases with the exception of the Maritime provinces where it was considerably higher on the employment basis. This was entirely due to the fact that one large plant accounted for a considerable proportion of the total employment of the reporting plants in that region. Since its program was not very extensive in character, the plant basis provides a better indication of the relative extent of post-war modernization and expansion in the Maritime region. Thus the incidence of both modernization and expansion was highest in Ontario and lowest in the Prairie provinces. It was about equal to the overall average in Quebec and relatively low in the other two regions. All but two of the plants that had completed their programs were located in Ontario and Quebec. About 10 percent of post-war modernization and expansion activity had been completed in each of the central provinces by the end of February.

The average time required for the completion of post-war modernization and expansion in each region is shown in Table 36. As in the case of reconversion, the average time required in Ontario and the Prairie provinces

FIGURE 5

EXTENT AND PROGRESS OF MODERNIZATION BY MAJOR REGIONS

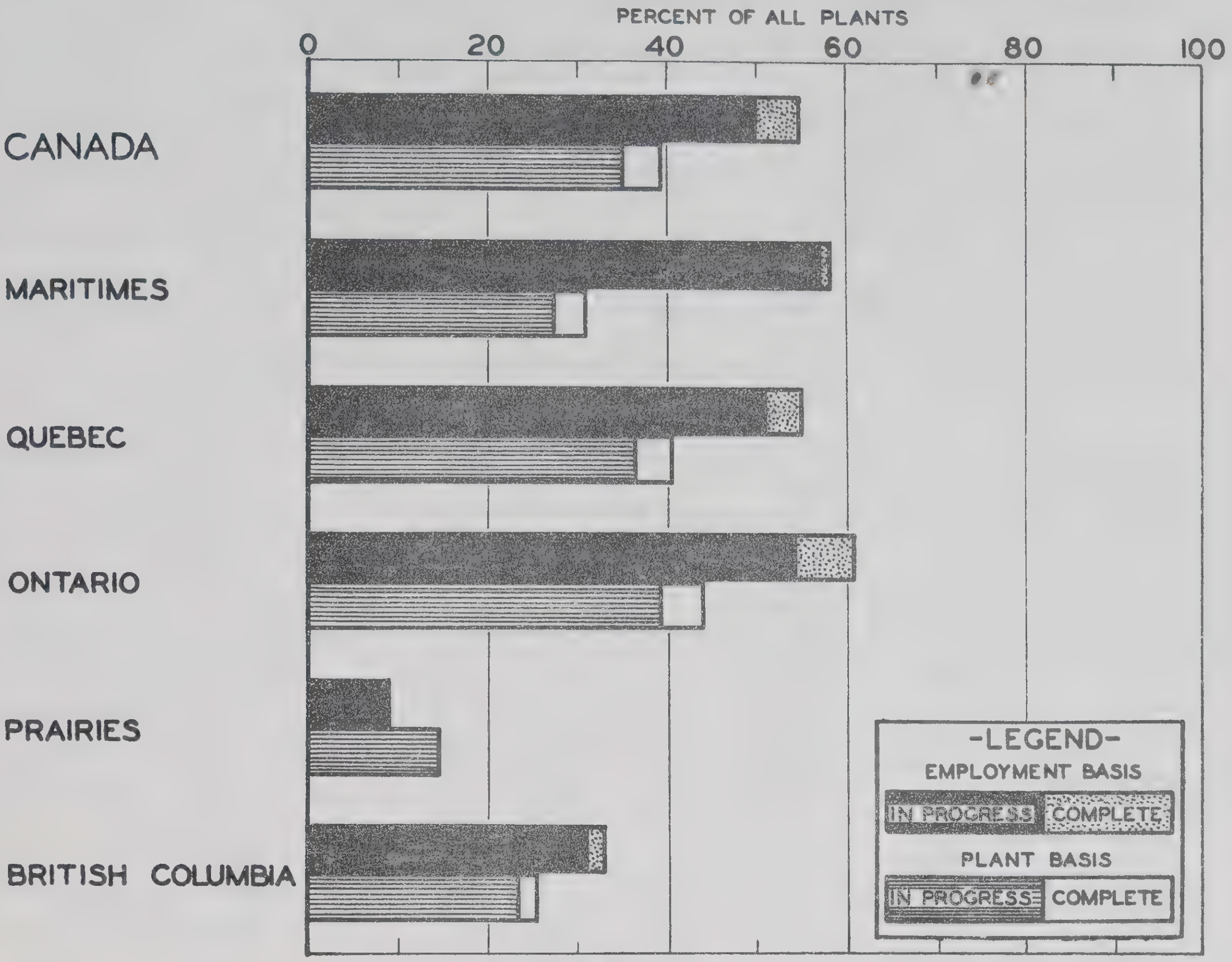
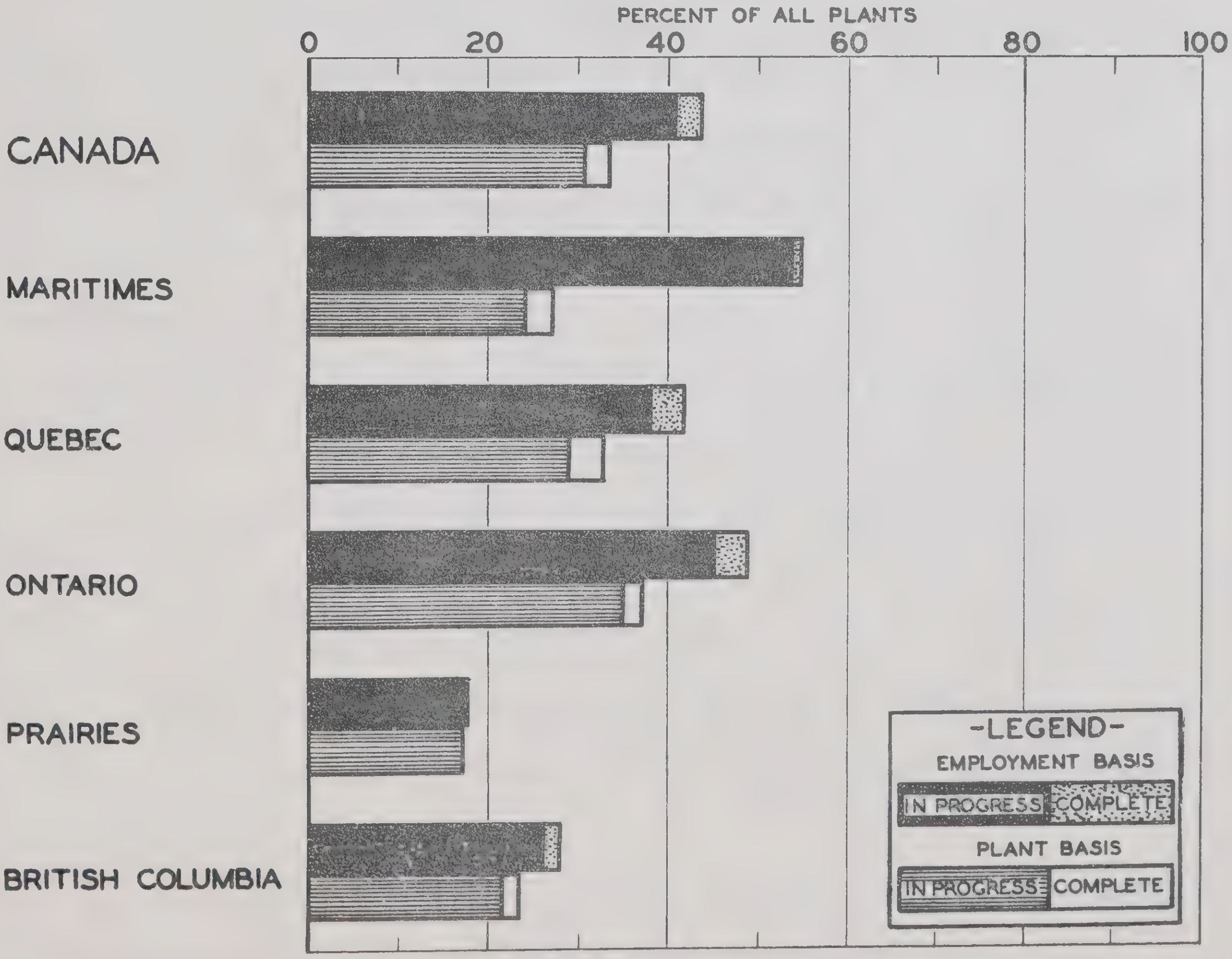


FIGURE 6

EXTENT AND PROGRESS OF EXPANSION BY MAJOR REGIONS



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was shorter than the overall average while in Quebec it was somewhat longer. This was mainly due to the relative importance in Quebec of such industries as primary textiles, clothing and pulp and paper in which the incidence of shortages was high. In the Maritime provinces modernization and expansion were expected to be complete by the end of 1947 whereas in British Columbia they were expected to be only five-eighths complete because of the longer term nature of the expansion programs in the pulp and paper industry.

Table 36 AVERAGE TIME REQUIRED FOR THE COMPLETION OF MODERNIZATION AND EXPANSION BY MAJOR REGIONS

Region	Number of Plants with Post-war Plans for Mod. and/or Exp.	Percent in Which programs were Expected to be Complete by		
		End of Feb. 1946 (Actual)	End of 1946 (Expected)	End of 1947 (Expected)
Maritime Provinces	10	10.0	60.0	100.0
Quebec	82	11.0	50.0	64.6
Ontario	189	9.0	61.4	81.5
Prairie Provinces	9	-	77.8	100.0
British Columbia	16	6.2	50.0	62.5
Canada	306	9.2	58.2	77.1

The increase in employment which was expected to result from the completion of reconversion, modernization and expansion was greatest in Quebec (3.8 percent) because of the relative importance of the primary textile and clothing industries in that region. These two industries alone accounted for 30 percent of the total expected increase. In Ontario it was just equal to the overall average of 3.4 percent and it was relatively low in the other regions. However, the survey results probably understate the employment creating effects of post-war expansion in British Columbia because the sample in that region is rather heavily weighted with ship-building and meat packing plants. Three-fifths of the reported increase in Ontario was expected to take place by the end of 1946 as compared with only two-fifths in Quebec. This was due to the fact that most of the primary textile plants in Quebec did not expect to complete their programs until 1947 or later.

In summary, the survey showed that the plants in which reconversion of production facilities was required were mainly concentrated in Ontario and Quebec. Reconversion was expected to be four-fifths complete in Ontario

by the end of August and more than nine-tenths complete cy the end of 1946 while in Quebec it was expected to be seven-tenths complete by the end of August and seven-eighths complete by the end of 1946. The survey also showed that post-war modernization and expansion are taking place mainly in Ontario and Quebec and particularly in southwestern Ontario, Montreal and the eastern townships. Modernization and expansion were expected to be three-fifths complete in Ontario by the end of 1946 and four-fifths complete by the end of 1947. In Quebec they were only expected to be half complete by the end of 1946 and two-thirds complete by the end of 1947. In considering these time schedules, however, allowance must be made for the retarding effects of the strikes that have taken place since the beginning of March as mentioned in the introduction to the industries section. Taken as a whole, the survey illustrates the degree to which business is aware of the need for industrial expansion and it indicates that a great deal of effort is likely to be exerted in the next two years in an attempt to strengthen the competitive position of Canadian manufacturing industry at home and abroad.

B. BY INDIVIDUAL REGIONS

1. MARITIME PROVINCES

Table 37 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN THE MARITIME PROVINCES

	Maritime Provinces		All Regions
	Plants Reporting	Percent Reporting	Percent Reporting
Total	29	100	100
Reconversion not required	21	72	62.5
Reconversion complete	4	14	19
Reconversion in progress	4	14	18.5
Reconversion retarded by shortages	3	10.5	11
Post-war plans for modernization	9	31	39.5
Post-war plans for expansion	8	27.5	33.5
Post-war plans for mod. & exp.	7	24	25.5
Mod. and/or exp. in progress	9	31	43
Mod. and/or exp. retarded by shortages	5	17	21.5

The coverage in the Maritime provinces is lower than in any other region except the Prairie provinces and it is heavily weighted with ship-building and railway rolling stock plants with these two industries accounting for more than one-third of the reporting plants.

The number of plants requiring reconversion was considerably lower than the overall average and the 4 plants in which reconversion had been

completed employed 50 percent more workers than the 4 plants in which it was still in progress. While the major portion of reconversion had thus been completed, the incidence of shortages among the plants with reconversion still in progress was higher than in any other region. Two of the four plants were being retarded by difficulties in securing necessary materials and one by slow delivery of machinery. One plant expected that reconversion would be completed by the end of May and one by the end of the year, but the other two were unable to state how long they would require. In spite of the delays which these 3 plants were experiencing, reconversion had been substantially completed in the Maritimes by the end of February. The main problem was one of adjustment to peace-time markets rather than of physical reconversion.

The incidence of both modernization and expansion was higher than in the Prairie provinces and British Columbia but considerably lower than in Ontario and Quebec. The number of plants that were being retarded by shortages was somewhat higher than the overall average. All of these 5 plants (of which 3 were primary textile and clothing plants) were experiencing delays in securing machinery but no other type of shortage was reported. The average time required for the completion of modernization and expansion was somewhat longer than the average for the country as a whole. Of the 9 plants with programs in progress, 2 expected to complete them by the end of August, 4 by the end of 1946 and 8 by the end of 1947. The other plant was unable to state how long it would require.

The small decline in expected employment between March 1 and May 1 was almost entirely due to anticipated lay-offs in two shipyards. In most of the other plants small increases in current employment were taking place. The employment creating effects of post-war expansion, however, were smaller than in any other region except British Columbia. The expected increase of 2.2 percent was only two-thirds as great as the overall average and was less widely distributed among the expanding plants than in any other region. Over 70 percent of the increase was accounted for by two textile plants in New Brunswick and since they both had relatively long range programs, only 30 percent of the total increase is expected to take place by the end of 1946.

2. QUEBEC

Table 38 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN QUEBEC

	Quebec		All Regions
	Plants Reporting	Percent Reporting	Percent Reporting
Total	182	100	100
Reconversion not required	119	65.5	62.5
Reconversion complete	30	16.5	19
Reconversion in progress	33	18.0	18.5
Reconversion retarded by shortages	17	9	11
Post-war plans for modernization	74	40.5	39.5
Post-war plans for expansion	60	33	33.5
Post-war plans for mod. & exp.	52	28.5	25.5
Mod. and/or exp. in progress	73	40	43
Mod. and/or exp. retarded by shortages	35	19	21.5

Although the coverage in Quebec is somewhat lower than in Ontario, it is only slightly lower than the overall average. The number of plants in which reconversion was required was a little lower than the national average. Somewhat less progress had been made toward the completion of reconversion than in the country as a whole. Good progress had been made in the smaller centres but this was more than offset by the relatively slow progress which had been made in most of the larger centres. The number of plants that were being retarded by shortages was considerably lower than the overall average and much lower than in Ontario. Of the 17 plants that were experiencing shortages, 10 were being delayed by difficulties in securing delivery of equipment, 4 by shortages of materials and 3 by a shortage of labour. Nearly all of these plants were located in Montreal. In spite of the relatively low incidence of shortages, the average time required for the completion of reconversion was considerably longer than it was for the country as a whole. Of the 33 plants with reconversion in progress, 6 percent (12 percent) [1] expected to complete it by the end of April, 42 percent (53 percent) by the end of August and 76 percent (82 percent) by the end of 1946. One of the remaining 8 plants expected to take a somewhat longer period and the other 7 plants were unable to state how long they would require.

The incidence of both modernization and expansion was just about equal to the overall average. The number of plants that were being retarded by shortages was a little lower than the national average but the difference

(1) Percentages in brackets are the average for the country as a whole.

between Quebec and Ontario in this respect was much less marked than in the case of shortages retarding reconversion. Of the 35 plants that were experiencing shortages, 26 were being retarded by slow delivery of equipment, 11 by material shortages and 7 by labour shortages. It was chiefly plants located in medium sized cities, and to a lesser extent, in the smaller industrial centres that were affected by shortages rather than those located in Montreal. As in the case of reconversion, the average time required for the completion of modernization and expansion was considerably longer than it was for the country as a whole and much longer than in Ontario. Of the 73 plants with programs in progress, 11 percent (24 percent) [1] expected to complete them by the end of August, 45 percent (54 percent) by the end of 1946 and 61 percent (75 percent) by the end of 1947. One-third of the remaining 28 plants had longer range programs and the other two-thirds were unable to state how long they would require.

Current employment was expected to increase by more than 3,000 between March 1 and May 1 and the employment creating effects of post-war expansion were greater than in any other region. The expected increase of 3.9 percent was 15 percent higher than the overall average and it was more widely distributed among the expanding plants than in any other area. The increase was proportionately highest in some of the smaller centres such as St. Jerome, Drummondville and St. Johns, somewhat lower than the provincial average in Montreal and quite low in the medium sized cities with the exception of Three Rivers. A little over 25 percent of the total increase was accounted for by the primary textile industry and 20 percent by the clothing industry. Only 43 percent of the increase will be realized by the end of 1946 as compared with the overall average of 55 percent because of the relatively large number of plants with longer range programs.

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(1) Percentages in brackets are the average for the country as a whole.

3. ONTARIO

Table 39 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN ONTARIO

	Ontario		All Regions Percent Reporting
	Plants Reporting	Percent Reporting	
Total	347	100	100
Reconversion not required	198	57	62.5
Reconversion complete	77	22.5	19
Reconversion in progress	72	20.5	18.5
Reconversion retarded by shortages	48	14	11
Post-war plans for modernization	153	44.5	39.5
Post-war plans for expansion	130	37.5	33.5
Post-war plans for mod. & exp.	94	27	25.5
Mod. and/or exp. in progress	172	49.5	43
Mod. and/or exp. retarded by shortages	87	25	21.5

The coverage in Ontario is higher than in any other region. The relatively high concentration of war production in Ontario was reflected in the fact that reconversion was required in a considerably higher proportion of plants than in any other region and while a little better than average progress had been made toward the completion of reconversion activities, much still remained to be accomplished. Over three-fifths of the plants with reconversion still in progress were located in Ontario. The number of plants affected by shortages was high--nearly two-thirds as compared with only a little over one-half in Quebec. Of the 48 plants that were experiencing shortages, 29 were being retarded by delays in securing machinery and equipment, 17 by shortages of labour and 13 by shortages of materials. Nearly all of the plants affected by shortages of labour in particular were located in Ontario. In spite of the high incidence of shortages, the average time required for the completion of reconversion was somewhat shorter than the average for the country as a whole and considerably shorter than in Quebec. Of the 72 plants with reconversion in progress, 15 percent (12 percent) expected to complete it by the end of April, 62 percent (53 percent)[1] by the end of August and 89 percent (82 percent) by the end of 1946. Five-eighths of the remaining 8 plants expected that their reconversion activities would extend into 1947 and the other three-eighths were unable to state how long they would require.

The incidence of both modernization and expansion was higher than in any other region. The number of plants that were being retarded by

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(1) Percentages in brackets are the average for the country as a whole.

shortages was only slightly higher than the overall average and only a little higher in Quebec in contrast to the case of reconversion. Of the 87 plants that were experiencing shortages, 60 were being delayed by slow delivery of equipment, 32 by material shortages, 19 by labour shortages and 3 by difficulties in securing additional factory space. While the number of plants affected by labour shortages was proportionately higher than in any other region, the concentration of this type of shortage in Ontario was not as marked as it was in the case of reconversion. The average time required for the completion of modernization and expansion was somewhat shorter than it was for the country as a whole and considerably shorter than in Quebec as in the case of reconversion. Of the 172 plants with programs in progress, 30 percent (24 percent) (1) expected to complete them by the end of August, 58 percent (54 percent) by the end of 1946 and 80 percent (75 percent) by the end of 1947. One-fifth of the remaining 34 plants had longer range programs and the other four-fifths were unable to state how long they would require.

Current employment was expected to increase by more than 3,000 between March 1 and May 1, nearly all of the increase being accounted for by a few of the medium sized cities--notably Brantford, Kitchener, Waterloo, Peterborough, St. Catharines and Windsor. In spite of the fact that the incidence of post-war expansion was higher than in any other region, the expected increase in employment was just equal to the national average of 3.4 percent. The increase was proportionately highest in some of the medium sized cities such as St. Catharines, Kitchener, Waterloo, London, Kingston, Peterborough and Hamilton. It was a little higher than average in Toronto, somewhat lower in Brantford, Windsor and Ottawa and quite low in the other medium sized centres. While it was high in a few of the smaller centres such as Cornwall, Guelph and Stratford, it was fairly low in the smaller centres as a whole in contrast to Quebec. The increase was distributed among the expanding plants about as widely as it was in the country as a whole. A little over 20 percent of the total increase was accounted for by the automobile industry, 13 percent by the electrical apparatus industry and 10 percent by the primary textile industry. The remainder was quite widely distributed industrially. A little over three-fifths of the total increase will be realized before the end of 1946 in contrast to about two-fifths in Quebec because of the larger number of plants with relatively short range programs.

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(1) Percentages in brackets are the average for the country as a whole.

4. PRAIRIE PROVINCES

Table 40 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN THE PRAIRIE PROVINCES

	Prairie Provinces		All Regions
	Plants Reporting	Percent Reporting	Percent Reporting
Total	34	100	100
Reconversion not required	25	73.5	62.5
Reconversion complete	7	20.5	19
Reconversion in progress	2	6	18.5
Reconversion retarded by shortages	0	0	11
Post-war plans for modernization	5	15	39.5
Post-war plans for expansion	6	17.5	33.5
Post-war plans for mod. & exp.	2	6	25.5
Mod. and/or exp. in progress	9	26.5	43
Mod. and/or exp. retarded by shortages	4	11.5	21.5

The coverage in the Prairie provinces is lower than in any other region and it is heavily weighted with meat packing plants with this industry accounting for more than 40 percent of the reporting plants. Reconversion was required in only 9 plants of which 7 were located in Winnipeg and it had already been completed in all but 2 relatively small plants. Neither of these plants were being retarded by any shortages. One of them expected to complete its reconversion activities by the end of April and the other within the next few months. Thus by the end of February, 1946 reconversion was substantially complete in the Prairie provinces.

The incidence of both modernization and expansion was lower than in any other region and only two plants were both modernizing and expanding. Two-thirds of the 9 plants with programs in progress were located in Manitoba (4 in Winnipeg) and all but one were meat packing plants or plants producing iron and steel products. The number of plants affected by shortages was somewhat lower than the overall average. Slow delivery of equipment was retarding the programs of 4 plants and 2 were being delayed by the shortage of building materials. No shortages of labour were reported. All but one of the plants experiencing shortages were located in Winnipeg. Nearly all of the expansion programs were of a relatively short range nature. One-third of the 9 plants expected to complete their programs by the end of August and two-thirds expected to do so by the end of 1946. All of the other 3 plants expected that their programs would be complete by the middle of 1947.

The small decline in expected employment between March 1 and May 1 was mainly due to the seasonal decline in employment in meat packing. Nearly all of the other plants expected to increase their current employment by small amounts. The expected increase of 2.4 percent resulting from post-war expansion was only about two-thirds as high as the national average, but it was higher than in the Maritime provinces or British Columbia. About half of the expected increase was concentrated in Winnipeg with the remainder being equally divided between Moose Jaw and Calgary. All but one of the 4 plants which reported increases were meat packing plants and they accounted for nearly 90 percent of the total increase. Since all of these plants had short range programs, all of the increase is expected to be realized by the end of 1946.

5. BRITISH COLUMBIA

Table 41 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN BRITISH COLUMBIA

	British Columbia		All Regions
	Plants Reporting	Percent Reporting	Percent Reporting
Total	51	100	100
Reconversion not required	41	80.5	62.5
Reconversion complete	3	6	19
Reconversion in progress	7	13.5	18.5
Reconversion retarded by shortages	2	4	11
Post-war plans for modernization	13	25.5	39.5
Post-war plans for expansion	12	23.5	33.5
Post-war plans for mod. & exp.	9	17.5	25.5
Mod. and/or exp. in progress	15	29.5	43
Mod. and/or exp. retarded by shortages	7	13.5	21.5

The coverage in British Columbia is higher than it is in the Prairie and Maritime provinces but it is lower than the coverage in the central provinces. It is heavily weighted with shipbuilding and fish packing plants with these two industries accounting for nearly one-third of the total number of reporting establishments. Reconversion was required in proportionately fewer plants in British Columbia than in any other region, but relatively less progress had been made towards its completion by the end of February than had been made in the other regions. The number of plants that were being retarded by shortages was lower than in any other region except the Prairie provinces. Only two plants were affected and they were both having difficulties in securing necessary equipment and materials. No

shortages of labour were reported. The average time required for the completion of reconversion was about equal to the overall average. Of the 7 plants with reconversion still in progress, 2 expected to complete it by the end of April, 4 by the end of September and 5 by the end of 1946. The other two were unable to state how long they would require.

The number of plants with post-war plans for modernization or expansion was lower than in any other region except the Prairie provinces. Of the 15 establishments with programs in progress, 4 were shipyards and 3 were fish packing plants, with the remainder distributed among a wide range of enterprises. The incidence of shortages was a little lower than the average for the country as a whole. Slow delivery of machinery and equipment was retarding the programs of 5 plants and 5 were being delayed by material shortages--chiefly building materials. The number of plants affected by material shortages was considerably higher than in any other region. No shortages of labour were reported. The average time required for the completion of modernization and expansion was longer than in any other region except Quebec. Only 4 of the 15 plants with programs in progress expected to complete them by the end of August, 7 by the end of 1946 and 9 by the end of 1947. Of the other 6 plants, 2 had longer range programs and 4 did not know how long they would require.

In evaluating the amount of post-war expansion that is taking place in British Columbia, account should be taken of a number of developments not covered in the survey. For instance, the Canadian Pacific Airlines plant in New Westminster has been taken over by a new company which is converting it to the production of prefabricated housing and plywood. When in full operation, this company expects to employ about 1,000 men. A $5.5 million pulp and paper plant is under construction at Port Alberni. The Westminster Paper Company is building a $1.5 million addition to its plant which will double its present capacity and provide employment for an additional 80 to 100 men. The Vancouver Breweries Limited is undertaking a $1 million expansion program. Two new match plants are being built at Victoria and Abbotsford. These new developments in addition to those reported in the survey indicate the industrial expansion that is taking place on the West Coast.

In spite of this expansion, a temporary decline in total employment was expected to take place between March 1 and May 1, but this was mainly

due to continued reductions in employment in shipyards. In most of the other establishments employment was expected to remain stable or to increase slightly. The employment creating effects of post-war expansion were smaller than in any other region, the expected increase of 1.5 percent being considerably lower than the national average. The major portion of the increase was expected to take place in Vancouver. Two-thirds of the increase was accounted for by two meat packing plants and the other third was divided between the pulp and paper and fish packing industries. In spite of the relatively large number of plants with longer range programs, two-thirds of the increase is expected to take place before the end of 1946. In addition to the employment increase reported in the survey, there are the opportunities created by new establishments which are expected to strengthen significantly industrial diversification in British Columbia.

C. BY MAJOR INDUSTRIAL CENTRES

This section is intended to supplement the regional study by providing an analysis of the survey results for the major industrial centres. The nine urban areas which have been selected account for more than half of the reporting plants and they include all the cities in which employment in manufacturing is greater than 15,000 with the exception of Greater London where the coverage of the survey was considered insufficient for purposes of local analysis. The results for a number of the smaller industrial centres are included in Appendix C. A few centres including Sydney, Sault Ste. Marie, Sudbury and Victoria have been omitted from the table because the coverage in these areas is limited to one or two plants. Niagara Falls and Welland have been combined because the results were similar in both centres in contrast to St. Catharines. Regina, Saskatoon, Calgary and Edmonton have been combined for the same reason.

In evaluating the results of the survey for the major industrial centres, the variations in coverage should be kept in mind. (see Table 42). The survey also provides a relatively more balanced industrial sample for some centres than it does for others. For instance, in Vancouver the sample is weighted with shipbuilding and meat and fish packing plants and in Winnipeg it is weighted with meat packing and railway rolling stock plants. In Windsor, Kitchener-Waterloo and Hamilton, on the other hand, the survey provides a representative sample of the major industries in these areas. Thus the results of the survey provide a more complete and representative picture of the extent and progress of post-war expansion in these centres than they do for Winnipeg and Vancouver.

Table 42 EMPLOYMENT IN MANUFACTURING BY URBAN CENTRES

	D.B.S. Survey Mar.1,1946	D.R.S. Sample Survey Mar.1,1946	Col. 2 as a percent of Col. 1
Canada	956,670	378,837	39.6
Sorel	2,764	2,370	85.7
Pictou-Trenton-New Glasgow	2,070	1,749	84.5
Valleyfield	3,856	3,182	82.5
Greater Windsor	26,759	21,466	80.2
Peterborough	8,791	6,989	79.5
Oshawa	5,380	3,874	72.0
Greater Hamilton	46,775	31,847	68.1
Three Rivers	6,821	4,517	66.2
Niagara Falls-Welland	13,749	8,740	63.6
Brantford	11,675	7,312	62.6
Shawinigan Falls	4,345	2,662	61.3
Kitchener-Waterloo	15,324	9,093	59.3
Amherst	789	453	57.4
Kingston	5,181	2,425	46.8
Greater Montreal	174,958	71,975	41.1
Greater Quebec	15,777	5,941	37.7
Greater Halifax	10,538	3,875	36.8
Greater St. John	5,412	1,839	34.0
St. Catharines	11,508	3,909	34.0
Greater Toronto	157,193	52,268	33.3
Greater Ottawa (incl. Hull, Que.)	14,455	4,645	32.1
Sherbrooke-Lennoxville	7,536	2,280	30.3
Greater Vancouver	31,800	9,088	28.6
Fort William-Port Arthur	5,538	1,497	27.0
Greater Winnipeg	31,650	8,253	26.1
Regina-Saskatoon-Calgary-Edmonton	18,920	4,865	25.7
Greater London	14,227	2,929	20.6

Source: Data referred to as "D.B.S. Survey" have been compiled from special tabulations made by the Employment and Payroll Statistics Branch of the Dominion Bureau of Statistics for the Department of Reconstruction and Supply.

1. GREATER MONTREAL

Table 43 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN GREATER MONTREAL

	Greater Montreal		Quebec	All Regions
	Plants Reporting	Percent Reporting	Percent Reporting	Percent Reporting
Total	107	100	100	100
Reconversion not required	62	58	65.5	62.5
Reconversion complete	20	18.5	16.5	19
Reconversion in progress	25	23.5	18	18.5
Reconversion retarded by shortages	12	11	9	11
Post-war plans for mod.	44	41	40.5	39.5
Post-war plans for exp.	36	33.5	33	33.5
Post-war plans for mod. & exp.	34	32	28.5	25.5
Mod. and/or exp. in progress	39	36.5	40	43
Mod. and/or exp. retarded by shortages	14	13	19	21.5

The coverage in Montreal is a little better than the national average. The number of plants requiring reconversion was higher than in any other area in Quebec, but it was only a little higher than the overall average. Somewhat less progress had been made toward the completion of reconversion than in the rest of Quebec and in the country as a whole. While 70 percent of the plants in Quebec that were experiencing shortages were located in Montreal, the relative incidence was a little lower than in the rest of Quebec and considerably lower than the overall average. Of the 12 plants affected by shortages, 7 were being retarded by slow delivery of equipment, 3 by shortages of materials and 2 by shortages of skilled labour. The average time required for the completion of reconversion was just about equal to the regional average but considerably longer than the national average. Of the 25 plants with reconversion still in progress, 4 percent (12 percent) [1] expected to complete it by the end of April, 40 percent (53 percent) by the end of August and 76 percent (82 percent) by the end of 1946. Of the remaining 6 plants, one expected to take a longer period and the other 5 plants were unable to state how long they would require.

The incidence of both modernization and expansion was just about equal to the regional and national averages. All but two of the plants that were expanding were also modernizing. The number of plants with modernization or expansion programs was highest in the radio, clothing, machinery, boilers and tanks, food and tobacco and railway rolling stock industries. On the

(1) Percentages in brackets are the average for the country as a whole.

whole, the industrial distribution was varied with no industry accounting for more than 10 percent of the total. Only 36 percent of the plants with programs in progress were being retarded by shortages as compared with 62 percent for the rest of Quebec and 49 percent for the country as a whole. Slow delivery of equipment was impeding the programs of 10 plants while 5 were being delayed by shortages of materials, 2 by shortages of labour and one by difficulties in securing additional factory space. Seven of the 46 plants had already completed their programs by the end of February. This was a higher proportion than in most other centres. The average time required by the other 39 plants for the completion of their programs was somewhat shorter than the average for the plants in the rest of Quebec, but it was considerably longer than the overall average. Only 13 percent (24 percent) (1) expected to complete them by the end of August, 51 percent (54 percent) by the end of 1946 and 67 percent (75 percent) by the end of 1947. Of the remaining 13 plants, 3 had longer range programs and the other 10 were unable to state how long they would require.

Current employment was expected to increase by nearly 2,500 between March 1 and May 1. The expected increase resulting from post-war expansion was just equal to the overall average of 3.4 percent as compared with 3.9 percent for Quebec as a whole and 3.8 percent for Toronto. The clothing industry accounted for 23 percent of the total increase and the radio industry for 11 percent, but the remainder was widely distributed among a number of industries. About half of the increase was expected to be realized by the end of 1946.

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(1) Percentages in brackets are the average for the country as a whole.

2. GREATER QUEBEC CITY

Table 44 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN GREATER QUEBEC CITY

	Greater Quebec		Quebec	All Regions
	Plants Reporting	Percent Reporting	Percent Reporting	Percent Reporting
Total	10	100	100	100
Reconversion not required	9	90	65.5	62.5
Reconversion complete	0	0	16.5	19
Reconversion in progress	1	10	18	18.5
Reconversion retarded by shortages	0	0	9	11
Post-war plans for mod.	1	10	40.5	39.5
Post-war plans for exp.	0	0	33	33.5
Post-war plans for mod. & exp.	0	0	28.5	25.5
Mod. and/or exp. in progress	1	10	40	43
Mod. and/or exp. retarded by shortages	1	10	19	21.5

The coverage in Quebec is a little lower than the overall average, but it includes nearly all of the larger plants except some of the boot and shoe and tobacco processing plants. The number of plants in which reconversion was necessary was lower than in any other centre. The one plant in which it was required was being retarded by a shortage of materials and it was unable to state how long it would require to complete its reconversion program.

The incidence of modernization was lower than in any of the other centres except the Prairie cities and the incidence of expansion was lower than in any other large urban community. Quebec was the only major industrial centre in which none of the reporting plants was undertaking any post-war expansion. The one plant that was modernizing its facilities was being retarded by slow delivery of equipment and was unable to state how long it would require to complete its program.

The expected increase in employment was as high as the overall average because the increase reported by this one plant was quite large. However, the employment creating effects of post-war expansion are comparatively small in relation to the volume of unemployment in this area.

[illegible]

[illegible]	[illegible]

[illegible]

[illegible]

[illegible]

3. GREATER HAMILTON

Table 45 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN GREATER HAMILTON

	Greater Hamilton		Ontario	All Regions
	Plants Reporting	Percent Reporting	Percent Reporting	Percent Reporting
Total	39	100	100	100
Reconversion not required	26	66.5	57	62.5
Reconversion complete	6	15.5	22.5	19
Reconversion in progress	7	18	20.5	18.5
Reconversion retarded by shortages	5	12.5	14	11
Post-war plans for mod.	21	53.5	44.5	39.5
Post-war plans for exp.	16	41	37.5	33.5
Post-war plans for mod. & exp.	13	33.5	27	25.5
Mod. and/or exp. in progress	24	61.5	49.5	43
Mod. and/or exp. retarded by shortages	13	33.5	25	21.5

The coverage in Hamilton is high and provides a good sample of the industries in this area. The number of plants requiring reconversion was not only considerably lower than the Ontario average but was also somewhat lower than the overall average. The Niagara peninsula and Kingston were the only areas in Ontario in which the ratio was lower. A little less than average progress had been made toward the completion of reconversion by the end of February. The 6 plants in which reconversion was complete employed 5,200 workers while the 7 plants in which it was still in progress employed 7,000. The proportion affected by shortages was somewhat higher than the regional average. Four plants were being retarded by delays in securing equipment, two by shortages of labour and one by a shortage of materials. However, the average time required for the completion of reconversion was rather short. Four plants expected to complete their reconversion by the end of May and the other three expected to do so by the end of 1946.

The incidence of modernization and expansion was high. The primary textile, basic iron and steel, machinery and wire products industries headed the list but the industrial distribution was quite wide with no industry accounting for more than one-eighth of the total. As in the case of reconversion, the number affected by shortages was somewhat higher than the overall average. Slow delivery of machinery and equipment was retarding 7 plants while 6 were being delayed by shortages of materials (chiefly steel and textile materials rather than building materials) and 5 by labour shortages. The

incidence of both material and labour shortages was particularly high. In spite of these difficulties, the average time anticipated for the completion of modernization and expansion was somewhat shorter than the overall average. Of the 24 plants with programs in progress, 33 percent expected to complete them by August, 45 percent by the end of 1946 and 83 percent by the end of 1947. One plant had a longer range program and the other three were unable to state how long they would require.

The employment creating effects of post-war expansion were somewhat low in relation to the amount of activity that was being undertaken. The expected increase of 3.3 percent was just about equal to the overall average.(1) A little under half of the expected increase will be realized by the end of 1946. The agricultural implements industry accounted for 28 percent of the total and the primary textile industry for 19 percent with the remainder fairly widely distributed among other industries.

4. KITCHENER - WATERLOO

Table 46 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN KITCHENER - WATERLOO

	Kitchener - Waterloo		Ontario	All Regions
	Plants Reporting	Percent Reporting	Percent Reporting	Percent Reporting
Total	17	100	100	100
Reconversion not required	8	47	57	62.5
Reconversion complete	4	23.5	22.5	19
Reconversion in progress	5	29.5	20.5	18.5
Reconversion retarded by shortages	5	29.5	14	11
Post-war plans for mod.	10	58.5	44.5	39.5
Post-war plans for exp.	11	64.5	37.5	33.5
Post-war plans for mod. & exp.	7	41	27	25.5
Mod. and/or exp. in progress	13	76.5	49.5	43
Mod. and/or exp. retarded by shortages	8	47	25	21.5

The coverage in Kitchener - Waterloo is quite high and it provides a good sample of the different industries operating in this area. The number of plants requiring reconversion was considerably higher than the Ontario average. Somewhat less progress had been made toward the completion of reconversion than in the other parts of Ontario and in the rest of the country. The plants in which reconversion was complete employed only a little over half

(1) This figure does not take account of the increase in employment expected as a result of the adaptation of one of the war plants for automobile production by the Studebaker Corporation.

[illegible]

as many workers as those in which it was still in progress and the number of plants in the latter group was proportionately higher than in any of the other major industrial centres except Windsor. All of the 5 plants with reconversion still in progress were being retarded by shortages - 3 by labour shortages, 2 by slow delivery of equipment and one by a shortage of materials. The number affected by labour shortages was higher than in any other centre. In spite of the very high incidence of shortages, the average time required for the completion of reconversion was shorter than in any of the other major industrial centres. All but one of the 5 plants expected to complete their reconversion by the end of June and the other plant expected to do so by the end of September, 1946.

The incidence of modernization was higher than in all but three other centres and the incidence of expansion was higher than in all but two other urban areas. All but 3 of the 17 reporting plants were intending to modernize or expand their facilities. Most of these were plants producing consumers goods. The number affected by shortages was high. Slow delivery of equipment was retarding 6 plants while 4 were being delayed by shortages of materials (building materials in 2 cases) and 3 by shortages of labour. As in the case of reconversion, the incidence of labour shortages was higher than in any other centre. Two establishments have had to build branch plants in smaller towns in western Ontario instead of expanding their main plants because of this shortage. The average time required for the completion of modernization and expansion was shorter than in any of the other major industrial centres except Ottawa and Windsor. Of the 13 plants with programs in progress, 31 percent (24 percent) (1) expected to complete them by the end of August, 77 percent (54 percent) by the end of 1946 and 85 percent (75 percent) by the end of 1947. The other two plants were unable to state how long they would require.

The expected increase in employment of 6.1 percent resulting from expansion was higher than in any other centre in Ontario except St. Catharines. Nearly all of the increase was expected to take place before the end of 1946. The footwear industry accounted for a little over one-quarter of the total increase, but the remainder was widely distributed among a number of industries, chiefly consumers' goods industries.

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(1) Percentages in brackets are the average for the country as a whole.

5. GREATER OTTAWA

(Including Hull, Que.)

Table 47 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN GREATER OTTAWA

	Ottawa and Hull		Ontario	All Regions
	Plants Reporting	Percent Reporting	Percent Reporting	Percent Reporting
Total	14	100	100	100
Reconversion not required	9	64	57	62.5
Reconversion complete	2	14.5	22.5	19
Reconversion in progress	3	21.5	20.5	18.5
Reconversion retarded by shortages	3	21.5	14	11
Post-war plans for mod.	4	28.5	44.5	39.5
Post-war plans for exp.	3	21.5	37.5	33.5
Post-war plans for mod. & exp.	2	14.5	27	25.5
Mod. and/or exp. in progress	5	35.5	49.5	43
Mod. and/or exp. retarded by shortages	2	14.5	25	21.5

The coverage in Ottawa and Hull is somewhat lower than the overall average mainly because of the small number of pulp and paper plants and the lumber mills included. The number of establishments in which reconversion was necessary was a little lower than the overall average. While only 2 of the 5 plants requiring reconversion had completed it, their employment was 50 percent greater than that of the 3 plants in which it was still in progress. All of these latter plants were being impeded by shortages - two by delays in securing machinery and one by a shortage of labour. However, the average time required for the completion of reconversion was quite short. Two of them expected that it would be complete by the end of July and the other by the end of September.

The incidence of both modernization and expansion was quite low. The number affected by shortages was fairly low in contrast to the case of reconversion. Two plants were being retarded by slow delivery of machinery but no other shortages were reported. The average time required for the completion of modernization and expansion was shorter than in any of the other major industrial centres. Of the 5 plants with programs in progress, 2 expected to complete them by the end of July and 4 by the end of September. The other plant was unable to state how long it would require.

The expected increase in employment of 2.6 percent was only about three-quarters as great as the national average. But if account were taken of new projects contemplated but not included in the survey in the Ottawa-Hull

area, the employment creating effects of post-war expansion would probably be about as great as the average for the country as a whole. All of the increase was expected to take place by the end of 1946. Two-fifths of the increase was accounted for by the clothing industry, two-fifths by the printing industry and the other fifth by the tool making industry.

6. GREATER TORONTO

Table 48 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN GREATER TORONTO

	Greater Toronto		Ontario	All Regions
	Plants Reporting	Percent Reporting	Percent Reporting	Percent Reporting
Total	97	100	100	100
Reconversion not required	51	52.5	57	62.5
Reconversion complete	19	19.5	22.5	19
Reconversion in progress	27	28	20.5	18.5
Reconversion retarded by shortages	17	17.5	14	11
Post-war plans for mod.	40	41.5	44.5	39.5
Post-war plans for exp.	41	42.5	37.5	33.5
Post-war plans for mod. & exp.	26	27	27	25.5
Mod. and/or exp. in progress	49	50.5	49.5	43
Mod. and/or exp. retarded by shortages	21	21.5	25	21.5

The coverage in Toronto is lower than in most of the other industrial centres. The employment of the reporting plants represents only 33 per cent of the employment reported to the Dominion Bureau of Statistics as compared with 41 percent for Montreal and 43 percent for Ontario as a whole.

The number of plants in which reconversion was necessary was somewhat higher than the Ontario average. Reconversion was required in 47.5 percent of the plants in Toronto as compared with 42 percent in Montreal. Relatively less progress had been made toward the completion of reconversion that had been made in most of the major industrial centres. Only 41 percent of the plants requiring reconversion had completed it by the end of February as compared with 44 percent in Montreal and 58 percent in Ontario as a whole. The relative incidence of shortages was a little lower than the Ontario average, but it was much higher than in Montreal. Of the 27 plants with reconversion still in progress, 11 were being retarded by difficulties in securing equipment, 6 by shortages of materials and 4 by labour shortages. In spite of the relatively high incidence of shortages, the average time required for the completion of reconversion was shorter than the overall average and considerably shorter than

in Montreal. About 15 percent (12 percent)(1) expected to complete their reconversion activities by the end of April, 68 percent (53 percent) by the end of August, and 89 percent (82 percent) by the end of 1946. Two of the remaining 3 plants expected to take a longer period and the other plant was unable to state how long it would require.

The number of plants with post-war plans for modernization was a little higher than the overall average and a little lower than the Ontario average, but the number with plans for expansion was somewhat higher than the Ontario average and considerably higher than in Montreal. The incidence of modernization and expansion was highest in the radio, heavy electrical apparatus, chemicals, primary textiles, automobile, base metal fabrication and machinery industries, but the industrial distribution was very wide with no industry accounting for more than 10 percent of the total.

The incidence of shortages was relatively low in contrast to the case of reconversion although it was higher than in Montreal. Only 43 percent of the plants with programs in progress were being retarded by shortages as compared with 51 percent in Ontario as a whole and 36 percent in Montreal. Of the 21 plants that were experiencing shortages, 16 were being retarded by slow delivery of equipment, 8 by shortages of materials (chiefly building materials) and 2 by labour shortages. The number affected by labour shortages was considerably lower than the overall average. Six or 11 percent of the 55 plants with post-war plans for modernization or expansion had already completed them by the end of February as compared with the overall average of 9 percent and 15 percent in Montreal. The average time required by the other 49 plants for the completion of their programs was somewhat shorter than the overall average and considerably shorter than in Montreal. A little under 25 percent (24 percent)(1) expected to complete them by the end of August, 63 percent (54 percent) by the end of 1946 and 84 percent (75 percent) by the end of 1947. Of the remaining 8 plants, one had a longer range program and the other 7 were unable to state how long they would require.

Current employment was not expected to increase between March 1 and May 1, but the employment creating effects of post-war expansion were somewhat greater than the overall average. The expected increase over employment on May 1 was 3.8 percent as compared with 3.4 percent for Ontario as a whole

(1) Percentages in brackets are the average for the country as a whole.

and for Montreal. A little over half of the total increase was expected to take place by the end of 1946. The increase was somewhat less widely distributed industrially than it was in Montreal. The heavy electrical apparatus industry accounted for 22 percent of the expected increase, the radio industry for 19 percent and the clothing industry for 12 percent. The remainder covered a wide range of industries.

7. GREATER WINDSOR

Table 49 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN GREATER WINDSOR

	Greater Windsor		Ontario	All Regions
	Plants Reporting	Percent Reporting	Percent Reporting	Percent Reporting
Total	19	100	100	100
Reconversion not required	5	26.5	57	62.5
Reconversion complete	7	36.5	22.5	19
Reconversion in progress	7	36.5	20.5	18.5
Reconversion retarded by shortages	2	10.5	14	11
Post-war plans for mod.	8	42	44.5	39.5
Post-war plans for exp.	5	26.5	37.5	33.5
Post-war plans for mod. & exp.	4	21	27	25.5
Mod. and/or exp. in progress	7	36.5	49.5	43
Mod. and/or exp. retarded by shortages	1	5.5	25	21.5

The coverage in Windsor is higher than in any of the other major industrial centres and includes nearly all of the larger plants. The number of plants requiring reconversion was higher than in any other centre and while half of them had completed it by the end of February, much still remained to be accomplished. The plants in which reconversion was complete employed only half as many workers as those in which it was still in progress and the number of plants in the latter group was proportionately higher than in any other centre. However, the incidence of shortages was only half as high as the overall average. Only two plants were affected. One was being retarded by a shortage of labour and materials and the other by a shortage of labour and equipment. The average time required for the completion of reconversion was quite short. Of the 7 plants with reconversion still in progress, 4 expected to complete it by the end of June and 6 by the end of November. The other plant was unable to state how long it would require.

The number of plants with post-war plans for modernization was a little higher than the overall average and a little lower than the Ontario

average, but establishments planning to expand were relatively fewer in number. All but one of these plants were automobile plants. The incidence of shortages was lower than in any of the other major industrial centres. One plant was awaiting the removal of surplus Crown equipment in order to carry out its modernization program, but otherwise no shortages of any kind were reported. The average time required for the completion of modernization and expansion was shorter than in any of the other major industrial centres except Ottawa. One large and one medium sized plant had already completed their programs. Of the other 7 plants with programs in progress, 3 expected to complete them by the end of June, 5 by the end of November and 6 by the spring of 1947. The other plant was unable to state how long it would require.

The expected increase in employment of 2.8 percent resulting from expansion was only four-fifths as great as that indicated for the country as a whole. The bulk of the increase was expected to be realized before the end of 1946. Nearly all of these additional jobs were to become available in two automobile plants.

8. GREATER WINNIPEG

Table 50 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN GREATER WINNIPEG

	Greater Winnipeg		Prairie Provinces Percent Reporting	All Regions Percent Reporting
	Plants Reporting	Percent Reporting		
Total	12	100	100	100
Reconversion not required	5	41.5	73.5	62.5
Reconversion complete	5	41.5	20.5	19
Reconversion in progress	2	17	6	18.5
Reconversion retarded by shortages	0	0	0	11
Post-war plans for mod.	3	25	15	39.5
Post-war plans for exp.	2	17	17.5	33.5
Post-war plans for mod. & exp.	1	8.5	6	25.5
Mod. and/or exp. in progress	4	33.5	26.5	43
Mod. and/or exp. retarded by shortages	3	25	11.5	21.5

The coverage in Winnipeg is lower than in any of the other major industrial centres except London, but it includes most of the larger plants. The number of plants requiring reconversion was very high - 58.5 percent as compared with 26.5 percent in the Prairie region as a whole and 29.5 percent in Vancouver. Greater progress had been made toward the completion of reconversion than in any of the other major industrial centres. Reconversion was

still in progress in only two small plants neither of which was being retarded by any shortages. One of them expected to complete its reconversion activities by the end of April and the other within the next few months. Thus reconversion had been substantially completed in Winnipeg by the end of February.

The incidence of both modernization and expansion was low. In particular the incidence of expansion was lower in Winnipeg than in any of the other centres except Quebec City, Shawinigan Falls and the Prairie cities. Of the 4 plants with programs in progress, 3 were plants producing iron and steel products and the other was a food processing plant. The number affected by shortages was high in contrast to the case of reconversion. Three plants were being retarded by delays in securing machinery and two of these were also being retarded by the shortage of building materials. However, the average time required for the completion of modernization and expansion was quite short. All of the 4 plants expected to complete their programs during December, 1946.

The expected increase in employment of 2.7 percent resulting from expansion was only 80 percent as high as the overall average, but it was as high as the expected increase in Vancouver and 20 percent higher than in the rest of the Prairie region. The food processing plant accounted for 80 percent of the total increase and the remainder was accounted for by one of the iron and steel using plants. Both plants expected that the increase would be achieved by the end of 1946.

9. GREATER VANCOUVER

Table 51 SUMMARY OF RECONVERSION, MODERNIZATION AND EXPANSION IN GREATER VANCOUVER

	Greater Vancouver		British Columbia	All Regions
	Plants Reporting	Percent Reporting	Percent Reporting	Percent Reporting
Total	27	100	100	100
Reconversion not required	19	70.5	80.5	62.5
Reconversion complete	2	7.5	6	19
Reconversion in progress	6	22	13.5	18.5
Reconversion retarded by shortages	1	3.5	4	11
Post-war plans for mod.	8	29.5	25	39.5
Post-war plans for exp.	9	33.5	23.5	33.5
Post-war plans for mod. & exp.	6	22	17.5	25.5
Mod. and/or exp. in progress	10	37	29.5	43
Mod. and/or exp. retarded by shortages	4	15	13.5	21.5

The coverage in Vancouver is lower than in any of the other major industrial centres except Winnipeg and London. The number of plants in which

reconversion was necessary was considerably higher than in the rest of British Columbia but somewhat lower than the overall average. Only 29.5 percent of the plants in Vancouver required reconversion as compared with 58.5 percent in Winnipeg, 47.5 percent in Toronto and 42 percent in Montreal. Relatively less progress had been made toward the completion of reconversion than in nearly all of the other centres. All but one of the plants in British Columbia with reconversion still in progress were located in Vancouver. The incidence of shortages was low. Only one plant was affected; it was being retarded by slow delivery of equipment and by difficulties in securing building materials. The average time required for the completion of reconversion was about equal to the overall average. Of the 6 plants with reconversion still in progress, 2 expected to complete it by the end of April, 4 by the end of September and 5 by the end of the year. The other plant was unable to state how long it would require.

The number of plants with post-war plans for modernization was considerably higher than in the rest of British Columbia, but it was only 75 percent as high as the overall average. However, the number with plans for expansion was as high as the overall average and three times as high as in the rest of British Columbia. All but two of the plants with plans for modernization or expansion in progress were food processing, shipbuilding or lumber plants. The incidence of shortages was fairly low. Only 40 percent of the plants with programs in progress were affected as compared with 60 percent in the rest of British Columbia and 49 percent in the country as a whole. Three plants were being retarded by delays in securing machinery, one by the shortage of building materials and one by a shortage of other materials. One plant had already completed its program, but the average time required by the other 10 plants was somewhat longer than the overall average though not as long as in the rest of British Columbia. Three of them expected to complete their programs by the end of August, 5 by the end of 1946 and 7 by the end of 1947. The other 3 plants were unable to state how long they would require.

The expected increase in employment of 2.7 percent resulting from expansion, though only 80 percent as great as the overall average, was higher than in the rest of British Columbia. Nearly 90 percent of the expected increase was accounted for by 4 meat and fish packing plants and the remainder was accounted for by 2 plants producing iron and steel products. About three-quarters of these additional jobs were expected to become available before the end of 1946.

S T A T I S T I C A L
A P P E N D I X

APPENDIX A. PROGRESS OF RECONVERSION, MODERNIZATION AND EXPANSION BY INDUSTRIES

	CANADA		CONSUMERS' NON-DURABLE GOODS		CONSUMERS' DURABLE GOODS		PRODUCERS' GOODS		BASIC MATERIALS	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Employment on March 1, 1946	378,837		89,014		61,106		162,908		65,809	
Employment on May 1, 1946	382,712	100	89,242	100	62,746	100	164,152	100	66,572	100
Expected Increase over May 1, resulting from Expansion	13,000	3.4	4,644	5.2	2,931	4.7	4,104	2.5	1,321	2.0
Amount of Expected Increase that will be Realized by the end of 1946	7,155	1.9	2,093	2.3	2,340	3.7	1,904	1.2	818	1.2
Total Number of Plants Reporting	643	100	148	100	81	100	279	100	135	100
Reconversion not required	404	62.8	111	75	28	34.6	162	58.1	103	76.3
Reconversion Complete	121	18.8	12	8.1	24	29.6	61	21.9	24	17.8
Reconversion in Progress	118	18.3	25	16.9	29	35.8	56	20.1	8	5.9
Reconversion Retarded by Shortages	70	10.8	18	12.2	15	18.5	34	12.2	3	2.2
Labour	20	3.1	8	5.4	3	3.7	6	2.2	3	2.2
Materials and Parts	21	3.3	7	4.7	4	4.9	10	3.6	0	0
Equipment and Tools	42	6.5	10	6.8	10	12.3	21	7.5	1	0.7
Post-War Plans for Modernization and/or Expansion	306	47.6	77	52.0	50	61.7	121	43.4	58	43.0
Modernization only	90	14.0	23	15.5	12	14.8	37	13.3	18	13.3
Expansion only	52	8.1	11	7.4	14	17.3	13	4.7	14	10.4
Modernization and Expansion	164	25.5	43	29.1	24	29.6	71	25.4	26	19.3
Modernization Complete	27	4.2	3	2.0	7	8.6	15	5.4	2	1.5
Modernization in Progress	227	35.3	63	42.6	29	35.8	93	33.3	42	31.1
Expansion Complete	18	2.8	4	2.7	3	3.7	9	3.2	2	1.5
Expansion in Progress	198	30.8	50	33.8	35	43.2	75	26.9	38	28.1
Modernization and/or Expansion in Progress	278	43.2	73	49.3	43	53.1	106	38.0	56	41.5
Modernization and/or Expansion Retarded by Shortages	138	21.5	50	33.8	20	24.7	46	16.5	22	16.3
Labour	26	4.0	12	8.1	2	2.5	11	3.9	1	0.7
Materials and Parts	50	7.8	14	9.5	8	9.9	19	6.8	9	6.7
Equipment and Tools	100	15.6	37	25.0	14	17.3	31	11.1	18	13.3
Additional Factory Space	4	.6	2	1.4	0	0	1	0.4	1	0.7

APPENDIX A. (CONTINUED)

	CONSUMERS' NON-DURABLE GOODS								CONSUMERS' DURABLE GOODS			
	PRIMARY TEXTILES		CLOTHING		FOOTWEAR		FOOD & TOBACCO		HOUSEHOLD FURNISHINGS		RADIO & COMMUNICATIONS	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Employment on March 1, 1946	36,347		16,155		11,974		24,538		2,319		13,791	
Employment on May 1, 1946	36,998	100	16,415	100	12,300	100	23,529	100	2,440	100	13,573	100
Expected increase over May 1, resulting from expansion	2,294	6.2	1,540	9.4	200	1.6	610	2.6	303	12.4	817	6.0
Amount of expected increase that will be realized by the end of 1946	679	1.8	719	4.4	150	1.2	545	2.3	303	12.4	512	3.8
Total number of plants reporting	51	100	40	100	17	100	40	100	7	100	19	100
Reconversion not required	43	84.3	23	57.5	8	47.1	37	92.5	5	71.4	7	36.8
Reconversion complete	4	7.8	3	7.5	4	23.5	1	2.5	1	14.3	5	26.3
Reconversion in progress	4	7.8	14	35.0	5	29.4	2	5.0	1	14.3	7	36.8
Reconversion retarded by shortages	2	3.9	12	30.0	3	17.6	1	2.5	0	0	5	26.3
Labour	1	2.0	5	12.5	2	11.8	0	0	0	0	1	5.3
Materials and parts	1	2.0	5	12.5	0	0	1	2.5	0	0	2	10.5
Equipment and tools	1	2.0	6	15.0	2	11.8	1	2.5	0	0	3	15.8
Post war plans for modernization and/or expansion	32	62.7	21	52.5	9	52.9	15	37.5	5	71.4	12	63.2
Modernization only	15	29.4	3	7.5	2	11.8	3	7.5	0	0	0	0
Expansion only	3	5.9	3	7.5	1	5.9	4	10.0	2	28.6	4	21.1
Modernization and expansion	14	27.5	15	37.5	6	35.3	8	20.0	3	42.9	8	42.1
Modernization complete	1	2.0	2	5.0	0	0	0	0	0	0	1	5.3
Modernization in progress	28	54.9	16	40.0	8	47.1	11	27.5	3	42.9	7	36.8
Expansion complete	0	0	4	10.0	0	0	0	0	0	0	1	5.3
Expansion in progress	17	33.3	14	35.0	7	41.2	12	30.0	5	71.4	11	57.9
Modernization and/or expansion in progress	31	60.8	18	45.0	9	52.9	15	37.5	5	71.4	11	57.9
Modernization and/or expansion retarded by shortages	21	41.2	15	37.5	5	29.4	9	22.5	3	42.9	7	36.8
Labour	5	9.8	4	10.0	3	17.6	0	0	0	0	1	5.3
Materials and parts	5	9.8	4	10.0	1	5.9	4	10.0	1	14.3	4	21.1
Equipment and tools	17	33.3	11	27.5	3	17.6	6	15.0	2	28.6	5	26.3
Additional factory space	0	0	1	2.5	1	5.9	0	0	0	0	0	0

APPENDIX A. (CONTINUED)

	CONSUMERS' DURABLE GOODS				PRODUCERS' GOODS							
	AUTOMOBILES		DOMESTIC APPLIANCES		PRIMARY IRON & STEEL		STRUCTURAL & SHEET STEEL		CASTINGS & FORGINGS		MACHINERY & PARTS	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Employment on March 1, 1946	36,310		8,686		22,332		7,550		8,792		15,268	
Employment on May 1, 1946	37,903	100	8,830	100	22,693	100	7,539	100	8,653	100	15,305	100
Expected increase over May 1, resulting from expansion	1,475	3.9	336	3.8	0	0	240	3.2	257	3.0	547	3.6
Amount of expected increase that will be realized by the end of 1946	1,375	3.6	150	1.7	0	0	100	1.3	170	2.0	358	2.3
Total number of plants reporting	37	100	18	100	20	100	13	100	26	100	41	100
Reconversion not required	9	24.3	7	38.9	20	100	8	61.5	10	38.5	22	53.7
Reconversion complete	12	32.4	6	33.3	0	0	4	30.8	12	46.2	6	14.6
Reconversion in progress	16	43.2	5	27.8	0	0	1	7.7	4	15.4	13	31.7
Reconversion retarded by shortages	7	18.9	3	16.7	0	0	0	0	2	7.7	11	26.8
Labour	2	5.4	0	0	0	0	0	0	2	7.7	1	2.4
Materials and parts	1	2.7	1	5.6	0	0	0	0	0	0	3	7.3
Equipment and tools	5	13.5	2	11.1	0	0	0	0	0	0	7	17.1
Post war plans for modernization and/or expansion	21	56.8	12	66.7	8	40	7	53.8	14	53.8	24	58.5
Modernization only	8	21.6	4	22.2	4	20	1	7.7	6	23.1	9	22.0
Expansion only	4	10.8	4	22.2	0	0	1	7.7	0	0	1	2.4
Modernization and expansion	9	24.3	4	22.2	4	20	5	38.5	8	30.8	14	34.1
Modernization complete	4	10.8	2	11.1	0	0	2	15.4	2	7.7	2	4.9
Modernization in progress	13	35.1	6	33.3	8	40	4	30.8	12	46.2	21	51.2
Expansion complete	2	5.4	0	0	0	0	0	0	1	3.8	2	4.9
Expansion in progress	11	29.7	8	44.4	4	20	6	46.2	7	26.9	13	31.7
Modernization and/or expansion in progress	17	45.9	10	55.5	8	40	6	46.2	12	46.2	22	53.7
Modernization and/or expansion retarded by shortages	5	13.5	5	27.8	3	15	2	15.4	5	19.2	7	17.1
Labour	0	0	1	5.6	2	10	0	0	2	7.7	2	4.9
Materials and parts	1	2.7	2	11.1	2	10	2	15.4	1	3.8	4	9.8
Equipment and tools	4	10.8	3	16.7	1	5	2	15.4	1	3.8	3	7.3
Additional factory space	0	0	0	0	0	0	0	0	0	0	1	2.4

APPENDIX A. (CONTINUED)

	PRODUCERS' GOODS											
	BOILERS, TANKS, ENGINES, HEAT'G, EQUIP.		SMALL TOOLS & BUILDERS' HARDWARE		PLUMBING FIXTURES		WIRE PRODUCTS		HEAVY ELECTRICAL APPARATUS		AGRICULTURAL IMPLEMENTS	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Employment on March 1, 1946	4,961		3,960		4,122		4,204		20,013		12,409	
Employment on May 1, 1946	4,914	100	4,046	100	4,215	100	4,276	100	20,068	100	13,889	100
Expected increase over May 1, resulting from expansion	287	5.8	498	12.3	171	4.1	50	1.2	931	4.6	410	3.0
Amount of expected increase that will be realized by the end of 1946	174	3.5	98	2.4	45	1.1	0	0	381	1.9	110	0.8
Total number of plants reporting	14	100	16	100	9	100	6	100	29	100	9	100
Reconversion not required	5	35.7	9	56.3	4	44.4	5	83.3	9	31.0	4	44.4
Reconversion complete	4	28.6	4	25.0	3	33.3	1	16.7	8	27.6	2	22.2
Reconversion in progress	5	35.7	3	18.8	2	22.2	0	0	12	41.4	3	33.3
Reconversion retarded by shortages	2	14.3	2	12.5	2	22.2	0	0	9	31.0	2	22.2
Labour	0	0	2	12.5	0	0	0	0	1	3.4	0	0
Materials and parts	1	7.1	1	6.3	0	0	0	0	3	10.3	1	11.1
Equipment and tools	1	7.1	0	0	1	11.1	0	0	7	24.1	2	22.2
Post war plans for modernization and/or expansion	7	50.0	5	31.3	7	77.8	4	66.7	16	55.2	7	77.8
Modernization only	1	7.1	1	6.3	2	22.2	2	33.3	3	10.3	0	0
Expansion only	1	7.1	2	12.5	0	0	0	0	4	13.8	1	11.1
Modernization and expansion	5	35.7	2	12.5	5	55.6	2	33.3	9	31.0	6	66.7
Modernization complete	1	7.1	1	6.3	3	33.3	0	0	2	6.9	0	0
Modernization in progress	5	35.7	2	12.5	4	44.4	4	66.7	10	34.5	6	66.7
Expansion complete	0	0	0	0	2	22.2	0	0	1	3.4	0	0
Expansion in progress	6	42.9	4	25.0	3	33.3	2	33.3	12	41.4	7	77.8
Modernization and/or expansion in progress	6	42.9	4	25.0	4	44.4	4	66.7	14	48.3	7	77.8
Modernization and/or expansion retarded by shortages	2	14.3	0	0	1	11.1	4	66.7	9	31.0	5	55.6
Labour	0	0	0	0	1	11.1	0	0	2	6.9	1	11.1
Materials and parts	0	0	0	0	0	0	2	33.3	4	13.8	2	22.2
Equipment and tools	2	14.3	0	0	1	11.1	4	66.7	7	24.1	3	33.3
Additional factory space	0	0	0	0	0	0	0	0	0	0	0	0

APPENDIX A. (CONTINUED)

	PRODUCERS' GOODS										BASIC MATERIALS	
	RAILWAY ROLLING STOCK		SHIPBUILDING		AIRCRAFT		GUNS & MUNITIONS		MISC. IRON & STEEL PRODUCTS		BASE METALS	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Employment on March 1, 1946	21,591		18,899		10,336		3,331		5,140		17,542	
Employment on May 1, 1946	22,061	100	17,471	100	11,322	100	2,535	100	5,165	100	17,649	100
Expected increase over May 1, resulting from expansion	268	1.2	200	1.1	0	0	0	0	245	4.7	244	1.4
Amount of expected increase that will be realized by the end of 1946	268	1.2	0	0	0	0	0	0	200	3.9	59	.3
Total number of plants reporting	19	100	29	100	16	100	19	100	13	100	29	100
Reconversion not required	11	57.9	25	86.2	9	56.3	16	84.2	5	38.5	23	79.3
Reconversion complete	7	36.8	1	3.4	5	31.3	0	0	4	30.8	2	6.9
Reconversion in progress	1	5.3	3	10.3	2	12.5	3	15.8	4	30.8	4	13.8
Reconversion retarded by shortages	0	0	2	6.9	0	0	0	0	2	15.4	2	6.9
Labour	0	0	0	0	0	0	0	0	0	0	2	6.9
Materials and parts	0	0	1	3.4	0	0	0	0	0	0	0	0
Equipment and tools	0	0	1	3.4	0	0	0	0	2	15.4	0	0
Post war plans for modernization and/or expansion	6	31.6	7	24.1	1	6.3	1	5.3	7	53.8	9	31.0
Modernization only	3	15.8	3	10.3	0	0	0	0	2	15.4	3	10.3
Expansion only	0	0	2	6.9	0	0	0	0	1	7.7	4	13.8
Modernization and expansion	3	15.8	2	6.9	1	6.3	1	5.3	4	30.8	2	6.9
Modernization complete	2	10.5	0	0	0	0	0	0	0	0	0	0
Modernization in progress	4	21.1	5	17.2	1	6.3	1	5.3	6	46.2	5	17.2
Expansion complete	2	10.5	1	3.4	0	0	0	0	0	0	0	0
Expansion in progress	1	5.3	3	10.3	1	6.3	1	5.3	5	38.5	6	20.7
Modernization and/or expansion in progress	4	21.1	6	20.7	1	6.3	1	5.3	7	53.8	9	31.0
Modernization and/or expansion retarded by shortages	1	5.3	3	10.3	0	0	0	0	4	30.8	4	13.8
Labour	0	0	0	0	0	0	0	0	1	7.7	0	0
Materials and parts	1	5.3	1	3.4	0	0	0	0	0	0	3	10.3
Equipment and tools	0	0	3	10.3	0	0	0	0	4	30.8	3	10.3
Additional factory space	0	0	0	0	0	0	0	0	0	0	0	0

APPENDIX A. (CONTINUED)

	BASIC MATERIALS											
	CHEMICALS		OIL & GASOLINE		RUBBER & RUBBER GOODS		PULP & PAPER		LUMBER & PLYWOOD		OTHER BASIC MATERIALS	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Employment on March 1, 1946	12,618		5,742		4,247		17,131		3,812		4,717	
Employment on May 1, 1946	12,675	100	5,904	100	4,238	100	17,501	100	3,813	100	4,792	100
Expected increase over May 1, resulting from expansion	338	2.7	90	1.5	145	3.4	200	1.1	161	4.2	143	3.0
Amount of expected increase that will be realized by the end of 1946	258	2.0	0	0	145	3.4	70	.4	161	4.2	125	2.6
Total number of plants reporting	30	100	12	100	9	100	25	100	14	100	16	100
Reconversion not required	20	66.7	6	50.0	7	77.8	22	88	10	71.4	15	93.8
Reconversion complete	9	30.0	6	50.0	0	0	3	12	4	28.6	0	0
Reconversion in progress	1	3.3	0	0	2	22.2	0	0	0	0	1	6.3
Reconversion retarded by shortages	0	0	0	0	0	0	0	0	0	0	1	6.3
Labour	0	0	0	0	0	0	0	0	0	0	1	6.3
Materials and parts	0	0	0	0	0	0	0	0	0	0	0	0
Equipment and tools	0	0	0	0	0	0	0	0	0	0	1	6.3
Post war plans for modernization and/or expansion	15	50.0	3	25.0	4	44.4	15	60	5	35.7	7	43.8
Modernization only	3	10.0	1	8.3	1	11.1	9	36	0	0	1	6.3
Expansion only	5	16.7	0	0	1	11.1	1	4	1	7.1	2	12.5
Modernization and expansion	7	23.3	2	16.7	2	22.2	5	20	4	28.6	4	25.0
Modernization complete	1	3.3	0	0	0	0	0	0	1	7.1	0	0
Modernization in progress	9	30.0	3	25.0	3	33.3	14	56	3	21.4	5	31.3
Expansion complete	1	3.3	0	0	0	0	0	0	1	7.1	0	0
Expansion in progress	11	36.7	2	16.7	3	33.3	6	24	4	28.6	6	37.5
Modernization and/or expansion in progress	14	46.7	3	25.0	4	44.4	15	60	4	28.6	7	43.8
Modernization and/or expansion retarded by shortages	4	13.3	0	0	1	11.1	10	40	1	7.1	2	12.5
Labour	0	0	0	0	0	0	0	0	0	0	1	6.3
Materials and parts	2	6.7	0	0	1	11.1	2	8	0	0	1	6.3
Equipment and tools	3	10.0	0	0	1	11.1	9	36	1	7.1	1	6.3
Additional factory space	0	0	0	0	0	0	1	4	0	0	0	0

APPENDIX B. PROGRESS OF RECONVERSION, MODERNIZATION AND EXPANSION IN MANUFACTURING BY MAJOR REGIONS

	CANADA		MARITIME PROVINCES		QUEBEC		ONTARIO		PRAIRIE PROVINCES		BRITISH COLUMBIA	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Employment on March 1, 1946	378,837		15,827		120,879		201,650		17,994		22,487	
Expected Employment on May 1,1946	382,712	100.	15,694	100.	124,035	100.	204,951	100.	17,474	100	20,593	100.
Expected Increase over May 1, resulting from modernization and expansion	13,000	3.4	345	2.2	4,885	3.9	7,047	3.4	415	2.4	308	1.5
Amount of Expected Increase that will be Realized by the end of 1946	7,155	1.9	95	.6	2,080	1.7	4,362	2.1	415	2.4	203	1.0
Total number of Plants reporting	643	100.	29	100.	182	100.	347	100.	34	100.	51	100.
Reconversion not required	404	62.8	21	72.4	119	65.4	198	57	25	73.5	41	80.4
Reconversion complete	121	18.8	4	13.8	30	16.5	77	22.5	7	20.6	3	5.9
Reconversion in progress	118	18.3	4	13.8	33	18.1	72	20.5	2	5.9	7	13.7
Reconversion retarded by shortages	70	10.8	3	10.3	17	9.0	48	13.8	0	0	2	4
Labour	20	3.1	0	0	3	1.6	17	4.9	0	0	0	0
Materials and Parts	21	3.3	2	6.9	4	2.2	13	3.7	0	0	2	4
Equipment and Tools	42	6.5	1	3.4	10	5.5	29	8.4	0	0	2	4
Post war plans for mod. and/or expansion	306	47.6	10	34.5	82	45.1	189	53.6	9	26.5	16	31.4
Modernization only	90	14.0	2	6.9	22	12.1	59	17.0	3	8.8	4	7.8
Expansion only	52	8.1	1	3.4	8	4.4	36	10.4	4	11.8	3	5.9
Modernization and expansion	164	25.5	7	24.1	52	28.6	94	27.1	2	5.9	9	17.6
Modernization complete	27	4.2	1	3.4	8	4.4	17	4.9	0	0	1	2.0
Modernization in progress	227	35.3	8	27.6	66	36.3	136	39.2	5	14.7	12	23.5
Expansion complete	18	2.8	1	3.4	7	3.8	9	2.6	0	0	1	2.0
Expansion in progress	198	30.8	7	24.1	53	29.1	121	34.9	6	17.6	11	21.6
Modernization and/or expansion in progress	278	43.2	9	31	73	40.1	172	49.6	9	26.5	15	29.4
Modernization and/or expansion retarded by shortages	138	21.5	5	17	35	19.2	87	25.1	4	11.8	7	13.7
Labour	26	4.0	0	0	7	3.8	19	5.5	0	0	0	0
Materials and parts	50	7.8	0	0	11	6.0	32	9.2	2	5.9	5	9.8
Equipment and tools	100	15.6	5	17	26	14.3	60	17.3	4	11.8	5	9.8
Additional factory space	4	.6	0	0	1	.5	3	.9	0	0	0	0

APPENDIX C. PROGRESS OF RECONVERSION, MODERNIZATION AND EXPANSION BY INDUSTRIAL CENTRES.

	CANADA		AMHERST		GREATER HALIFAX		PICTOU - TRENTON NEW GLASGOW		ST.JOHN		GREATER MONTREAL	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Employment on March 1, 1946	378,737		453		3,875		1,749		1,839		71,975	
Employment on May 1, 1946	382,712	100.	459	100.	3,907	100.	1,808	100.	1,781	100.	74,425	100.
Increase over May 1, expected to result from post-war expansion	13,000	3.4	0	0	0	0	95	5.3	0	0	2,553	3.4
Amount of expected increase that will be realized by the end of 1946.	7,155	1.9	0	0	0	0	95	5.3	0	0	1,436	1.9
Total number of plants reporting	643	100.	3	100.	5	100.	6	100.	5	100.	107	100.
Reconversion not required	404	62.8	2	66.6	4	80	4	66.7	4	80	62	58.0
Reconversion complete	121	18.8	0	0	1	20	1	16.7	0	0	20	18.7
Reconversion in progress	118	18.3	1	33.3	0	0	1	16.7	1	20	25	23.3
Reconversion retarded by shortages	70	10.8	1	33.3	0	0	0	0	1	20	12	11.2
Post-war plans for modernization and/or expansion	306	47.6	1	33.3	2	40	1	16.7	1	20	46	43.0
Modernization only	90	14.0	0	0	0	0	0	0	0	0	10	9.3
Expansion only	52	8.1	0	0	0	0	0	0	0	0	2	1.9
Modernization and expansion	164	25.5	1	33.3	2	40	1	16.7	1	20	34	31.8
Modernization complete	27	4.2	1	33.3	0	0	0	0	0	0	6	5.6
Modernization in progress	227	35.3	0	0	2	40	1	16.7	1	20	38	35.5
Expansion complete	18	2.8	1	33.3	0	0	0	0	0	0	6	5.6
Expansion in progress	198	30.8	0	0	2	40	1	16.7	1	20	30	28.0
Modernization and/or expansion in progress	278	43.2	0	0	2	40	1	16.7	1	20	39	36.4
Modernization and/or expansion retarded by shortages	138	21.5	0	0	1	20	0	0	1	20	14	13.1

APPENDIX C. (Continued)

	QUEBEC		SHAWINIGAN FALLS		SHERBROOKE-LENNOXVILLE		SOREL		THREE RIVERS		VALLEYFIELD	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Employment on March 1, 1946	5,941		2,662		2,280		2,370		4,517		3,182	
Employment on May 1, 1946	5,955	100	2,664	100	2,280	100	2,617	100	4,571	100	3,122	100
Increase over May 1 expected to result from expansion	200	3.4	80	3.0	46	2.0	37	1.4	500	10.9	35	1.1
Amount of expected increase that will be realized by the end of 1946	0	0	0	0	46	2.0	0	0	0	0	15	0.5
Total number of plants reporting	10	100	8	100	5	100	3	100	4	100	3	100
Reconversion not required	9	90	7	87.5	4	80	2	66.6	3	75	1	33.3
Reconversion complete	0	0	1	12.5	0	0	0	0	0	0	1	33.3
Reconversion in progress	1	10	0	0	1	20	1	33.3	1	25	1	33.3
Reconversion retarded by shortages	0	0	0	0	0	0	0	0	1	25	0	0
Post-war plans for modernization and/or expansion	1	10	1	12.5	3	60	2	66.6	4	100	2	66.6
Modernization only	1	10	0	0	2	40	1	33.3	2	50	0	0
Expansion only	0	0	0	0	1	20	0	0	0	0	1	33.3
Modernization and Expansion	0	0	1	12.5	0	0	1	33.3	2	50	1	33.3
Modernization complete	0	0	0	0	0	0	0	0	1	25	0	0
Modernization in progress	1	10	1	12.5	2	40	2	66.6	3	75	1	33.3
Expansion complete	0	0	0	0	0	0	0	0	1	25	0	0
Expansion in progress	0	0	1	12.5	1	20	1	33.3	1	25	2	66.6
Modernization and/or expansion in progress	1	10	1	12.5	3	60	2	66.6	3	75	2	66.6
Modernization and/or expansion retarded by shortages	1	10	1	12.5	2	40	0	0	3	75	1	33.3

APPENDIX C. (CONTINUED)

	BRANTFORD		FORT WILLIAM - PORT ARTHUR		GREATER HAMILTON		KINGSTON		KITCHENER-WATERLOO		GREATER LONDON	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Employment on March 1, 1946	7,312		1,497		31,847		2,425		9,093		2,929	
Employment on May 1, 1946	7,734	100	1,475	100	32,074	100	2,432	100	9,247	100	3,040	100
Increase over May 1 Expected to result from expansion	225	2.9	61	4.1	1,052	3.3	120	4.9	564	6.1	171	5.6
Amount of expected increase that will be realized by the end of 1946	200	2.6	61	4.1	502	1.6	0	0	536	5.8	94	3.1
Total number of plants reporting	11	100	5	100	39	100	5	100	17	100	9	100
Reconversion not required	6	54.5	2	40	26	66.7	4	80	8	47.1	3	33.3
Reconversion complete	3	27.3	3	60	6	15.4	0	0	4	23.5	4	44.4
Reconversion in progress	2	18.2	0	0	7	17.9	1	20	5	29.4	2	22.2
Reconversion retarded by shortages	2	18.2	0	0	5	12.7	1	20	5	29.4	2	22.2
Post-war plans for modernization and/or expansion	6	54.5	2	40	24	61.5	1	20	14	82.4	7	77.7
Modernization only	1	9.1	0	0	8	20.5	0	0	3	17.6	2	22.2
Expansion only	1	9.1	0	0	3	7.7	0	0	4	23.5	3	33.3
Modernization and expansion	4	36.4	2	40	13	33.3	1	20	7	41.2	2	22.2
Modernization complete	0	0	0	0	1	2.5	0	0	0	0	1	11.1
Modernization in progress	5	45.5	2	40	20	51.2	1	20	10	58.7	3	33.3
Expansion complete	0	0	0	0	0	0	0	0	1	5.9	0	0
Expansion in progress	5	45.5	2	40	16	41.0	1	20	10	58.7	5	55.5
Modernization and/or expansion in progress	6	54.5	2	40	24	61.5	1	20	13	76.5	6	66.6
Modernization and/or expansion retarded by shortages	4	36.4	1	20	13	33.3	1	20	8	47.1	2	22.2

APPENDIX C. (CONTINUED)

	NIAGARA FALLS WELLAND		OSHAWA		GREATER OTTAWA (INCL. HULL)		PETERBOROUGH		ST.CATHARINES		GREATER TORONTO	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Employment on March 1, 1946	8,740		3,874		4,645		6,989		3,909		52,268	
Employment on May 1, 1946	8,6[illegible]8	100	3,882	100	4,894	100	7,198	100	4,715	100	52,229	100
Increase over May 1 expected to result from expansion	50	0.6	0	0	125	2.6	325	4.5	884	18.7	1,935	3.8
Amount of expected increase that will be realized by the end of 1946	50	0.6	0	0	125	2.6	0	0	761	16.1	1,106	2.1
Total number of plants reporting	14	100	6	100	14	100	7	100	9	100	97	100
Reconversion not required	10	71.4	2	33.3	9	64.3	4	57.1	7	77.8	51	52.6
Reconversion complete	3	21.4	2	33.3	2	14.3	1	14.3	1	11.1	19	19.6
Reconversion in progress	1	7.1	2	33.3	3	21.4	2	28.6	1	11.1	27	27.8
Reconversion retarded by shortages	1	7.1	1	16.7	3	21.4	1	14.3	0	0	17	17.5
Post-war Plans for modernization and/or expansion	6	42.8	3	50	5	35.7	3	42.9	7	77.8	55	56.7
Modernization only	3	21.4	2	33.3	2	14.3	0	0	0	0	14	14.5
Expansion only	1	7.1	0	0	1	7.1	1	14.3	1	11.1	15	15.5
Modernization and expansion	2	14.3	1	16.7	2	14.3	2	28.6	6	66.7	26	26.8
Modernization complete	0	0	2	33.3	0	0	0	0	0	0	6	6.2
Modernization in progress	5	35.7	1	16.7	4	28.6	2	28.6	6	66.7	34	35.1
Expansion complete	0	0	0	0	0	0	0	0	1	11.1	3	3.1
Expansion in progress	3	21.4	1	16.7	3	21.4	3	42.9	6	66.7	33	39.2
Modernization and/or expansion in progress	6	42.8	1	16.7	5	35.7	3	42.9	7	77.8	49	50.5
Modernization and/or expansion retarded by shortages	3	21.4	1	16.7	2	14.3	2	28.6	2	22.2	21	21.6